

# **2010 ARA RULES and REGULATIONS**

## **DISCLAIMER**

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 of such events. These rules shall govern all conditions of all events, and by participating in these events, all participants are deemed to have complied with these rules. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATIONS OF OR COMPLIANCE WITH THESE RULES AND/OR REGULATIONS. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to a participant, spectator or official.

The league/race director, or designated ARA Advance Racing Association Official, shall be empowered to permit minor deviation from any of the specifications herein or imposed any further restrictions that in his or her opinion do not alter the minimum acceptable requirements. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM SUCH ALTERATION IN SPECIFICATIONS. Any interpretation or deviation of these rules is left to the discretion of the ARA League/Race Officials, and their decision is final.

All ARA Licensees are and shall be independent contractors and shall use their own methods in performing their duties in accordance with the ARA rules as they may be amended from time to time. Licensee shall furnish any tools, supplies or materials in which he deems necessary to perform his duties. Licensee assumes and takes full responsibility for reporting and paying to the appropriate authorities all charges, premiums and taxes, if any, due or payable on any funds the licensee may receive as a result of his duties and/or activities as a ARA member, driver or owner.

Regulations and specifications set forth herein is automatically amended by directions contained in subsequent Official Entry forms and Official Technical Bulletins issued by ARA.

### **COMPETITOR LICENSES AND REGISTRATION**

All drivers must be a minimum of sixteen (16) years of age, and have a valid drivers license issued in the state they reside in. Drivers may compete at the age of fifteen (15), providing they have a minimum of three (3) years prior racing experience in other sanctioned events, a valid learners permit issued in the state they reside in, and they have been reviewed and approved by ARA and deemed eligible to compete in ARA Events. Any driver under the age of eighteen (18) years of age must have a properly executed parental consent form signed and notarized for admission to any events. Any driver under the age of eighteen (18) must be emancipated and approved on an individual basis by ARA and each racing venue.

All drivers, car owners, and mechanics must secure Licenses from ARA before taking part in any sanctioned event. Anyone who has obtained a license is automatically a member of ARA. Temporary licenses may be secured in the case of renters. Fees for all licenses are listed on the License and Registration Forms. (A car owner is not required to secure a mechanic's license.)

Rookie of the Year Qualifications: Rookie may not have previously competed in more than five (5) ARA sanctioned events. Rookie candidates may not have raced at a level above the ARA Ltd. Late Models and Pro Trucks series. All "Rookie" candidates must have a yellow piece of tape installed on the rear bumper, and start at the rear of the field for a minimum of three (3) sanctioned ARA events, unless otherwise determined by the ARA Race Director/Official.

All licenses will be issued from the home office of ARA.

All license applicants are subject to the approval or rejection by ARA. Only the member of whom it is issued can use that license. Any member attempting to allow another person to use his/her license in any manner shall be subject to disciplinary action.

Any driver, racecar owner, or crewmember that fails to notify ARA Race Officials of any change in driver, or permits a racecar to be driven in a race event by an unlicensed person, shall be subject to immediate disqualification, suspension, and/or fines.

### **CONDUCT AND PENALTIES**

ARA expects and requires that all who participate in any racing event conduct themselves in a respectable manner and display proper sportsmanship.

Any participant who, in the judgment of the ARA Officials, is guilty of unsportsmanlike conduct during a race event may be subject to any or all of the appropriate penalties. Without limiting the generality of the foregoing, unsportsmanlike conduct shall include reckless and overly aggressive driving endangering the safety of participants.

The driver will be held responsible for the actions of all who are associated with his/her race team, including but not limited to the owner, sponsors, crew members, family members, etc., and can be penalized accordingly, and may be subject to removal from all ARA racing activities.

All participants (drivers, crew, etc.) will be required to adhere to the local track rules regarding conduct, pit speeds, and any and all other such rules. Any conduct deemed detrimental to ARA will not be tolerated and will be dealt with accordingly, and with possible penalties.

Any driver, owner, or crewmember who participates in any demonstration, confrontation with other teams deemed by ARA officials to be threatening or out of line, or fight on the track premises before, during, or after a race event shall be subject to suspension, loss of winnings and points, and/or fines, and expulsion from the pit area and/or track premises. ARA has the right to review any incident at a later date, and enforce penalties post race event.

Until a suspension is lifted, the racecar to which the suspended member is registered may be restricted from competition at the discretion of ARA Race Officials.

Any abuse, assault, use of improper language, or threat thereof by any driver, owner, or crewmember towards any ARA Official, or any person operating under orders to any ARA Official, or any track official; shall be subject to suspension and/or fines and expulsion from the pit area and/or track premises.

ARA reserves the right to withhold any prize money, driver points, purse money, and official finishing position, stemming from penalties and/or other violations preceding or following post race inspection.

ARA Race Officials may, at their sole discretion, forfeit any accumulated Driver's Points earned by an offending driver to that date.

Fines may be deducted from the prize money of an entrant. All fines shall belong to ARA. No fine assessed shall be removed or modified except by order of the Owners/President of ARA, after consultation.

Fines are payable within one (1) week. Any delay in making payment shall entail suspension during the period the fine remains unpaid.

Only the Owners/President of ARA, may pronounce a sentence of suspension. The period of suspension shall be limited to a maximum of one year. A suspension shall apply to all divisions of racing unless otherwise specified.

A sentence of suspension so long as it remains in force shall entail the loss of any right to take part in any capacity whatsoever in any ARA sanctioned competition held within the territorial United States.

The use or presence of alcoholic beverages or illegal substances of any sort is strictly prohibited on the course or in the pit during the conduct of a race meeting, and may result in disqualification, suspension and/or exclusion.

Each situation that requires punitive action by the ARA Officials will be dealt with on an individual basis. Every attempt will be made to attain continuity in official decisions but the punishment will be drafted to fit the particular violation in question. Repeat conduct violations will be handled with increasing severity. Penalties can include but are not limited to: disqualification from the event, fines, probation, suspensions, or permanent expulsion from ARA.

Decisions made by ARA on conduct/penalties shall be final and binding.

## **GENERAL POLICIES**

***Before entering the racing area (or take the track for PRACTICE), at each event, the participant's Entry Fee MUST be paid, unless other arrangements have been made with only the "Administrative Manager". Failure to do so WILL result in the participant starting scratch.***

Race Entry and License Registration fees are non-refundable and non-transferable.

ARA Race Officials must be notified of any driver changes prior to every event.

ARA Race Officials reserve the right to reject or disallow entry of any driver or racecar or truck.

Drivers, owners, and mechanics shall have no claim against or cause of action for damages, expenses or otherwise against ARA Officials or promoters, by reason of disqualification or damage to racecar/truck, driver, or both.

ARA Officials and track officials will establish the length, frequency, and administration of all events.

Any and all racecars/trucks may be subject to ARA inspection before, during, and after any race events.

ARA reserves the right to impound any racecar/truck for inspection purposes.

ARA reserves the right to confiscate any part and/or equipment found to be improperly modified or illegal during an inspection; at which time, the confiscated part and/or equipment shall become the property of ARA and will not be returned.

## **SAFETY REGULATIONS**

### **GENERAL**

Each competitor is solely responsible for the effectiveness of personal safety equipment used during an event. ARA is not responsible for the effectiveness of any personal safety equipment.

Each competitor is expected to investigate and educate himself/herself fully with respect to the availability and effectiveness of personal safety equipment.

Passengers will not be permitted in or on a race vehicle at any time.

### **PROTECTIVE CLOTHING**

Driver is required to wear for competition, a one piece, minimum two-ply, full coverage, and flame retardant fire suit. Full coverage, fire retardant undergarments are recommended.

Driver is required to wear for competition, full length, and gauntlet style, fire retardant gloves.

Driver is required to wear for competition, fire retardant driving shoes. Fire retardant socks are recommended in addition to the driver shoes.

### **ROLL BARS**

All roll bars and other hard surfaces around the driver's seat must be padded with impact absorbent material acceptable to ARA.

All roll bars and corner post around the driver's head must be padded with SFI approved roll bar padding.

It is the responsibility of the driver and crewmember, not ARA to insure that he/she maintains, wears and properly uses protective clothing, and all safety equipment.

### **SAFETY DEVICES**

It is mandatory that in each vehicle, securely strapped within the driver's reach, a currently dated, fully charged Halon 1211 or equivalent fire extinguishing equipment, with a visible operating pressure gauge, B or C types dry chemical, minimum 2.5 lbs. capacity. *It is highly recommended that each vehicle have an on-board, automatic fire extinguishing system!*

All race vehicles must be equipped with a 5-point belt system: a minimum of three (3) inches wide, two piece shoulder harness with each side fastening separately and independently of the other with the harness at the proper angle over the drivers shoulder with a lap belt, crotch strap harness system with metal-to-metal central quick release latch. Belts must be replaced every two (2) years, or two racing seasons. ARA Officials can deem any faded or worn belts illegal.

Driver side window nets are mandatory. All window nets must be nylon mesh or web type. All nets must fit tight and be secured with a quick release type latch, and not be more than two (2) years old. ARA Officials can deem any faded or worn window nets to be illegal.

Driver's seat must be fastened to the frame and must be a factory manufactured aluminum safety-racing seat. No fiberglass seats will be allowed. A minimum of 6 (six) bolts (3/8" or larger w/large washers) is required. Four (4) bolts in the bottom and two (2) bolts in the back to secure the seat.

Head restraint must be fully flexible, aluminum, and not reinforced. Tech inspectors must approve all installations.

Fuel Cells are mandatory. Fuel cell must be enclosed in a separate container made of minimum 20-gauge steel with a 22-gallon maximum capacity. Fuel cell must be located in the original location. Relocation of the fuel cell is prohibited. All fuel cells must have a rear fuel cell guard attached to the frame. Fuel cell guard must be a minimum of 1.75" diameter, and .095" thickness, steel tubing. The minimum fuel cell to ground height is 8 inches, measured ready to race with driver.

A main battery power switch must be easily accessible to the driver, and to outside access from the driver's side window. Switch must be clearly marked for "on" and "off" positions.

Two-way radio communication between driver and crew permitted and highly recommended. ***This will be mandatory in 2009!***

## **HELMETS/HEAD & NECK RESTRAINT DEVICES**

### **HELMETS**

Drivers must wear a helmet carrying at least a valid SA 2000 Standard Snell Sticker at all times on the racetrack.

The driver must wear the helmet in accordance with the directions provided by the helmet supplier and/or manufacturer. Any modification to the helmet for any purpose should not detract from its effectiveness and will be deemed unusable.

### **HEAD & NECK RESTRAINT DEVICES/SYSTEMS**

At all times during an event (practice, qualifying and competition), drivers must connect their helmet to ARA approved head and neck restraint device/system. The head and neck restraint device/system, when connected, must conform to the manufacturer's mounting instructions, and it must be configured, maintained and used in accordance with the manufacturer's instructions.

It is the responsibility of the driver, not ARA to insure that his/her device/system is ARA approved, correctly installed, maintained and properly used.

The following are the current ARA approved Head and Neck Restraint Devices/Systems: HANS Device, Hutchens Device, Impact, and other brands upon ARA Approval.

Safety neck braces (Horse Collars) are highly recommended if you are using a Hutchens Device.

## **RACE TRACK OPERATING PROCEDURES**

Attendance at the ARA Driver's Meeting prior to Qualifying is Mandatory. Roll call will be done by driver name; any driver not present at that time will start scratch for the Feature Event.

Time trial qualifying, handicapped point system, order of registrations, and/or random draw will determine starting position. ARA reserves the right to invert any line-up. ARA Race Official will determine the method used. A driver must compete in a preliminary heat to be eligible for the feature event, unless otherwise noted. ARA reserves the right to have all competitors draw for qualifying.

When a race is stopped after completion of a race lap, race cars shall be lined up in the order they were running at the completion of the last lap, except for those involved in an accident, of any, which shall be established according to distance traveled and in the order in which they were running at the completion of their last lap or last scored lap. This rule shall apply unless a local track rule is declared to prevail at the driver's meeting prior to the race event.

The only people permitted on the racetrack are racing officials. Everyone must stay away from the racetrack at all times unless requested to assist for some special reason by an official.

Do not enter the racing surface without express authorization; ARA or track officials will approve your entry at the track entrance and signal for you to proceed.

In such circumstances that a race event is halted due to rain or other adverse conditions, ARA may reserve the right to refund competitor's money. No prize money and points for the race in question shall be issued.

Caution laps may count as completed laps at designated tracks and/or events.

In the event circumstances prevent completion of a race, the race will be considered officially completed after the halfway mark has been reached by the lead car/truck and it is deemed unsafe or impossible to continue the race within a reasonable amount of time after the event has been stopped.

Any car/truck causing a caution three (3) times during a race will be black-flagged. Any car/truck observed by ARA Officials to be operating in a manner that could be hazardous to other cars/trucks will be black-flagged.

Do not pass the pace car/truck unless clearly directed to do so by a track official. Violations will result in a one (1) lap penalty.

Race vehicles entering the pit area must adhere to local pit and paddock safety rules. No speeding or unsafe driving will be allowed. Unsafe driving in the pit area will result in penalty and/or fine.

Refusing to obey track or ARA Race Official will result in being penalized laps, finishing positions being taken away, the race stopped, the driver black-flagged, and a possible suspension and/or fines by the track and/or ARA.

No work can be done to a racecar/truck while it is on the track. All work must be done in the designated pit area.

***"ANY INVOLVEMENT RULE" will be in effect at all times. Any driver or drivers involved in a caution must restart at the end of the longest line. Additionally, the driver or drivers may be black-flagged if the ARA or the race officials determine that unnecessary rough driving caused the accident. If race officials or ARA makes this determination, the guilty driver/drivers may be subject to suspension, and/or fine, as well as, loss of points and purse.***

## **INSPECTIONS**

ARA Race Officials in charge of a race event shall determine the method and extent of a race vehicles inspection, and reserves the right to impound race vehicles competing in a sanctioned event.

Pre-race technical inspections will be at the discretion of the ARA Race Officials and conducted in a designated area or manner. Any car/truck or equipment deemed to be illegal by ARA Officials must be corrected prior to competition, unless otherwise stated by ARA Officials.

After making a qualifying attempt, or after completion of a heat race, you could be subject to a technical inspection.

The top three (3) finishers will go directly to the designated tech inspection area immediately following the main event, unless otherwise stated by ARA Officials. A failure to follow these procedures will result in loss of points and purse for that event.

There are not to be any more than two (2) peoples with the racecar/truck in the tech inspection location at any time following the feature event.

Any and all racecars/trucks shall be subject to an ARA inspection before, during, and after any race event.

ARA reserves the right to establish an impound area, with not more than two (2) people with the racecar/truck are permitted. ARA Officials assume no responsibility for impounded vehicles.

ARA reserves the right to confiscate any part(s) and /or equipment illegally used or found during an inspection, or that ARA believes may be improperly modified or illegal; at which time the part and/or equipment becomes the property of ARA, and will not be returned to the racing team.

Any vehicle, part, or component found to be illegal at post race inspection, will be subject to but not limited to: disqualification, suspension, loss of points and/or purse, fines or a combination of any of the aforementioned penalties.

## **PROTESTS**

A protest must be in the ARA Official's possession no later than 15 minutes after the feature event. Must be in cash and a written statement of what you want to protest. A driver or owner of a racecar/truck can only make protest. The protestor must be in the top ten and on the lead lap. ARA Official's reserve the right to determine a valid protest.

A: \$400 top half of engine to cam. B: \$600 into crank + rods and top half. C: \$400 for anything else.

The first \$100 of each protest will go to the Tech Official or ARA approved Engine Builder. The next \$100 will go to the ARA series. If the driver that the protest is made against is found to be legal, that driver/owner will collect the remaining money. If the

driver that the protest is made against is found to be illegal, the protestor will be returned the remaining money, and the illegal driver will face disqualification and other possible penalties, deemed by ARA Officials.

Scoring is not subject to protest.

## **ENGINE CLAIM**

At the discretion of ARA Officials, a competitor's engine may be claimed at any time, for any reason, during the race season for inspection.

## **POINTS AND POINT FUNDS**

ARA driver points will be issued at all ARA sanctioned races.

To receive driver show-up points (100 pts.), a driver needs to have paid an Entry fee; driver does not have to make a qualifying lap or take the green flag in a heat/feature race.

To receive driver points for a heat/qualifying race, a driver needs to have paid an entry fee, and have taken the green flag in a heat/ qualifying race.

To receive driver points and prize money, a driver needs to have paid an entry fee, made a qualifying lap; taken a green flag in a heat/qualifying race; and have taken the green flag in the feature race.

The point system will officially end for all ARA events on December 31st of each year or at the end of the official ARA race series season, whichever comes first.

ARA Race Officials may establish rules and regulations for the awarding of points, and point funds.

All decisions by ARA Officials in establishing and awarding the point funds shall be final and binding.

Any postponed race, if re-scheduled, shall be run on the same season point's breakdown, unless otherwise stated prior to the event.

Special Mulligan Option - Vehicle has to be paid entry and vehicle has to be present to be eligible (with registered ARA driver division availability).

### **Driver Points shall be awarded as follows:**

#### **Points system is based on the number of entries at each event.**

#### **Points for Qualifying Position Points for Heat/Qualifying Race Finish**

#### **30 Entries 20 Entries 30 Entries/Fast Heat 20 Entries/Fast Heat**

Driver Points shall be awarded as follows: Points system is based on the number of entries at each event.

Points for Qualifying Position Points for Heat/Qualifying Race Finish (Trophy Dash/1<sup>st</sup> Heat/2<sup>nd</sup> Heat – will start based on qualifying)

<b>30 ENTRIES QUALIFYING</b>		<b>30 ENTRIES HEAT</b>		<b>20 ENTRIES QUALIFYING</b>		<b>20 ENTRIES HEAT</b>	
PLACE	POINTS	PLACE	POINTS	PLACE	POINTS	PLACE	POINTS
1	30	1	30	1	20	1	20
2	29	2	29	2	19	2	19
3	28	3	28	3	18	3	18
4	27	4	27	4	17	4	17

5	26	5	26	5	16	5	16
6	25	6	25	6	15	6	15
7	24	7	24	7	14	7	14
8	23	8	23	8	13	8	13
9	22	9	22	9	12	9	12
10	21	10	21	10	11	10	11
11	20	11	20	11	10	11	10
12	19	12	19	12	9	12	9
13	18	13	18	13	8	13	8
14	17	14	17	14	7	14	7
15	16	15	16	15	6	15	6
16	15	16	15	16	5	16	5
17	14	17	14	17	4	17	4
18	13	18	13	18	3	18	3
19	12	19	12	19	2	19	2
20	11	20	11	20	1	20	1
21	10	21	10				
22	9	22	9				
23	8	23	8				
24	7	24	7				
25	6	25	6				
26	5	26	5				
27	4	27	4				
28	3	28	3				
29	2	29	2				
30	1	30	1				

**Anyone scored leading a feature green flag lap will receive (5) bonus points**  
**The most laps led in the feature event will receive an extra five (5) points.**

FEATURE POINT SYSTEM														
1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th
200	195	190	185	180	176	172	168	164	160	157	154	151	148	145
16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th
143	141	139	137	135	120	115	110	105	100	95	90	85	80	75

## **RACE CAR/TRUCK APPEARANCE**

ARA reserves the number "1" (#1) for the champion on a first right of refusal basis. Should the champion refuse the number "1", the number will be available, upon request, to any other competitor on a first come, first serve basis.

Car/Truck number from the previous year will be held for that driver until March 1st; if you have not paid your License Registration Fee by March 1st, that number will become available on a first come, first serve basis.

ARA will assign a requested car/truck number whenever possible, however, ARA reserves the right to change a car/truck number at any time to avoid duplication.

Numbers must be at least 18 inches high; and appear on both doors and the roof, so as to be read from the inside of the track. Additional numbers, at least 6 inches high must be placed on the right rear tail section, and the front, lower, passenger side, air

dam section of each vehicle. Numbers must be in a color contrasting with the body color; if the number is not legible from the scoring tower, the race vehicle will not be scored. ARA assumes no responsibility for errors in scoring if the assigned number is not legible or is not used.

All race cars/trucks shall be maintained and presentable in good repair and appearance at all times. The appropriate ARA decals and graphics must be displayed at all times throughout the series for the driver to be eligible for the points fund and contingency awards. ARA Race Officials may, from time to time, publish additional decal and graphic requirements and regulations. All cars/trucks must have the headlight decals properly installed for that vehicle type.

ARA reserves the right to require sponsor decals on any or all of the race vehicles. No other series decals will be permitted on the race cars/trucks, at any time.

Roof, windshield, doors, front fenders, rear spoiler, rocker panels, and nose panel, are reserved for ARA use. These areas are reserved for placement of the assigned car number, series sponsor(s), and/or associated and contingency sponsors. ARA will assign the placement of decals.

ARA reserves the right to place series sponsorship patches on all driver and crew uniforms.

## **ENGINES**

GM Performance Parts Crate Engine 350/400 – Part Number 88958604 is eligible for competition in the Late Model Division. Part Number 19258602 is eligible for competition in the Pro Truck Division. These engines must remain factory sealed and must maintain all original parts as delivered. Proof of purchase along with the serial number must be on file with ARA and all Crate motors must be purchased through ARA. All used Crate motors must be approved by ARA prior to purchase. Must be a sealed G.M. Crate motor or rebuilt G.M. Crate motor sealed by the ARA service center. *Official GM Motor rebuild will be done by ARA and Kyle Clearwater.*

Maximum compression ratio is 10:1 on all 8 cylinders, before, during, and after any race event. The engine shall be mounted in center of chassis position as measured from the center of the harmonic balancer bolt and the center of the transmission output shaft, correspond directly to the centerline of the frame. A ½" tolerance is allowed.

***The GM Performance Parts Crate Engine 350/400 – Part Number 88958604 or Part Number 19258602.***

Chevrolet 305 and Ford 302 cubic inch engines are legal in ARA competition. Each engine shall retain O.E.M. Bore/Stroke design except 305 up to .060 bore, 315 cubic inch max.. 10:1 compression. No offset grinding of the crankshaft is permitted. All Chevrolet engines must use large main and rod journal crankshafts. All crankshafts may be reground to a minimum diameter of .030 inches undersize from the original journal diameter. Cylinders may be bored to a maximum of .060 inches oversize. The maximum set-back position, as measured from the forward-most spark plug center-line, to the imaginary line projected between the left and right, front jack bolts, is 5 inches for the Chevy and Ford. All components must be installed in their original direction and location of travel as built by the O.E.M. Any G.M. cast iron head casting number. Must use steel Crank Rods & must be a min. weight of 50 lbs. Any flat tappet Cam & Lifters, NO Roller CAMS or Lifters. You will not be permitted to run any 305 or 302 with 350 or 351 heads

**CARS – Max. Horsepower to the rear wheel is 350 for the cars (No Exceptions)!**

**TRUCKS - Max. Horsepower to the rear wheel is 310 for the trucks (No exceptions)!**

## **BLOCKS**

Only O.E.M. Chevy 305 and Ford 302 cast iron blocks, with casting number clearly visible are legal for use. The blocks must retain the O.E.M. 2 bolt main caps. No 4 bolt main blocks or 4 bolt conversions. No sleeves permitted. No coatings or chemical treatments may be applied to the block, cylinder walls, or lifter bores. Exterior paint is okay.

No deburring or polishing. Deck milling to square block only- minimum deck height is .000 on Chevy & Ford. No angle milling of block is permitted. Cylinders may be bored .060 oversize. Cylinder bore spacing must remain as produced, no angle boring is permitted. Stand pipes and screen kits may be installed in lifter valley.

## **CRANKSHAFTS**

Any factory or after market crankshaft meeting the following specifications shall be legal:

Maintain O.E.M. 90 degree journal and counterweight design.

Crankshaft minimum weight: Chevy 305 – 50lbs; Stroke / 3.480" Ford 302 – 35lbs; Stroke/3.00"

The crankshaft may be reground to a minimum diameter of .030 undersize. Crankshaft may be balanced by drilling or welded for balancing only. Crankshaft counterweight lightening, reshaping, knife edging, etc... is strictly prohibited.

## **CONNECTING RODS**

Any connecting rod meeting the following specifications shall be legal:

Rods must retain all O.E.M. dimensions as follows: Chevy 305 – 5.70 inch Ford 302 – 5.090 inch

No material may be removed from the rod except on the balancing pads. Rods may be floated and polished. Rod bolts may be upgraded. No custom coatings or chemical treatments allowed. No lightweight or aluminum rods.

## **PISTONS**

Only cast hypereutectic or forged pistons allowed. No reverse dome or D-cup allowed. Wrist pins must remain in O.E.M. position. Any piston-to-wall clearances, minimum deck heights, are measured at the highest spot on the piston crown. Specs are as follows: Chevy 305 and Ford 302 - .000 inch.

No slant tops, angle milling, and/or excessive lightening of the pistons are allowed. No custom piston coating or chemical treatments allowed.

## **PISTON RINGS**

Piston rings must be the same dimensions as the original equipment ring package for the specific make of car (Chevy or Ford), gapless piston rings are strictly prohibited.

## **BEARINGS**

Any sleeve type Babbet or Tri-metal bearing permitted. No coatings or chemical treatments on any bearing.

## **FASTENERS**

Heavy duty upgraded bolts or studs may be used. No Titanium or hollow fasteners permitted.

## **GASKETS**

No O-ring or stacking gaskets will be permitted.

## **HEADS**

CHEVY– Cylinder heads shall be limited to the use of the General Motors cast iron design bearing the casting number 416.

The O.E.M. casting number must be unaltered and easily readable. The maximum intake valve size is 1.840". The maximum exhaust valve size is 1.500". Minimum combustion chamber 53CC. Stainless steel replacement valves of original length permitted with a maximum stem variance of

.018-inch. No interior deburring, polishing, or hand blending permitted. Studs may be pinned or screw-in studs with guide plates permitted. No angle milling of cylinder head. Intake and exhaust gasket surfaces may not be re-milled. Three (3) or four (4) angle valve job permitted. Valves may be back cut, but may not enter guide. Combustion chambers must remain as manufactured. No modification below seat, and no swirled seats.

FORD– Only Ford factory produced production 302 cast iron cylinder heads allowed.

The O.E.M. casting number must be unaltered and easily readable. Only E7TE Heads are allowed. The maximum intake valve size is 1.78.1". The maximum exhaust valve size is 1.46.9". Stainless steel replacement valves of original length permitted with a

maximum stem variance of .018-inch. No interior deburring, polishing, or hand blending permitted. Studs may be pinned or screw-in studs with guide plates permitted. No angle milling of cylinder head. Intake and exhaust gasket surfaces may not be re-milled. Three (3) or four (4) angle valve job permitted. Valves may be back cut, but may not enter guide. Combustion chambers must remain as manufactured. No modification below seat, and no swirled seats.

Any steel or aluminum valve cover may be used. The left valve cover must have (2) 1 3/8" or 1 1/2" baffled vent stacks with a minimum height of 4". The vent stacks shall use a positive vent breather / filter. No crankcase vacuum systems of any kind shall be permitted. Crankcase pressure must vent through left valve cover stacks/breathers.

Only single or double roller chain driven timing gear sets are permitted. No belt or gear driven timing sets are allowed. Timing gear cover may be steel or aluminum but must be a one-piece design. Any cam thrust button or bearing is permitted.

## **VALVE TRAINS**

Only camshafts purchased from ARA may be used. Camshaft cannot be blueprinted, re-sized, re-shaped, heat-treated or re-ground in any manner. Cam must be used as received and must remain "box stock". Advancing or retarding cam timing is optional.

Cam specs. for Chevy - Valve lift: .488 I; 510E Cam specs for Ford - Valve Life: .520 I; 544 E

Lobe centers: 109 Deg. I; 119 Deg. E Lobe centers: 107 Deg. I; 117 Deg. E

Duration @ .050:234 Deg. I; 244 Deg. E Duration @ .050:234 Deg. I; 244 Deg. E

Adv. Duration: 300 Deg. I; 310 Deg. E Adv. Duration: 300 Deg I; 310 Deg E

Stock type or anti-pump up hydraulic lifters are allowed. No roller lifters. Push rods may be sized to length to fit geometry. Lightweight push rods are allowed. No rev-kits, offset rocker arms, shaft mount rocker, light weight lifters, coated lifters, mushroom lifters, or oversize lifters are permitted.

1.6:1 ratio roller rockers and stud girdles are allowed. Maximum horsepower to the wheel 350 with no tolerance.

Ford heads may be converted to an adjustable valve train.

## **INTAKE MANIFOLDS**

The only intake manifold legal for ARA competition is the Edelbrock Performer RPM series. Part numbers are as follows: Chevy #7101 Ford #7121.

Intake manifolds must be "as cast" by Edelbrock. No alterations to the manifolds "whatsoever".

A 1" thick spacer is allowed, with one (1) gasket per side not to exceed .065 thickness.

## **CARBURETORS**

### **LIMITED LATE MODELS ONLY:**

The only carburetors legal for competition are Holley 4776, 600cfm, 4bbl, or 4777C, 650cfm, 4bbl. Only one carburetor allowed per engine, and two forms of throttle return are required. Must pass all ARA gauge checks.

### **PRO TRUCKS ONLY:**

The only carburetors legal for competition are Holley 4412, 500cfm, 2bbl, 4776C, 600cfm, 4bbl, or 4777C 650cfm, 4bbl. Only one carburetor allowed per engine, and two forms of throttle return are required. Must pass all ARA gauge checks.

### **LTD. LATE MODELS AND PRO TRUCKS BOTH:**

The only modifications allowed would be changing of the accelerator pump cam, squirters, power valve, and main jets. Choke butterfly and shaft only may be removed. No blue printed carburetors, or carburetors with re-calibrated fuel and air circuits, are allowed. Air bleeds must not be modified. Carburetors must remain out-of-the-box Holley. All air entering the carburetor must pass through the top of the carburetor. No grinding, filing, polishing or metal removal allowed. Any carburetor in question will be confiscated for ARA's inspection.

## **AIR CLEANERS**

Steel or aluminum air cleaner housing must be used on bottom. A flow through top Air Cleaner is allowed. No custom made top or bottom will be permitted. Air cleaners must be 12" minimum in diameter, 14" maximum in diameter, and three (3) inches maximum in height. The air cleaner element must be unaltered and in place whenever the engine is running. The air cleaner must be totally covered by the hood. No holes, vents, tubes, ducts, or any other devices may be used to guide air to the air cleaner unit. Absolutely no flow control items are allowed inside or outside the air cleaner, for any reason. The air filter must be open and unrestricted for 360 degrees. No shields, baffles, or other add-on equipment is allowed.

## **FUEL SYSTEMS**

Only the stock type, block mounted, mechanical fuel pump is allowed in ARA competition. The use of ice (wet or dry) on the fuel system is strictly forbidden. The ARA spec fuel cell must be maintained. No raising, lowering, or movement of the fuel cell is allowed. ARA reserves the right to test the fuel at any time.

It is mandatory that an anti-penetration plate constructed of steel be added to the front of the gas tank mount. The plate must be a minimum thickness of .060. The plate must be 36" wide and 11" high with a 4" lip under the front of the fuel cell. The plate must be welded in place. Two (2) access holes will be allowed at a maximum size of 1" per hole.

Fuel cell must be in the center of the frame rails with a 1/2" tolerance. (The measurement from the back of the weight jack bolts to the front of the fuel cell containment box should be between 17" and 18 1/2").

## **IGNITION SYSTEMS**

GM Performance Parts Crate Engines use Crane Ignition System or can be MSD. No Magnetos.

Chevy 305 or Ford 302, only a stock or after-market replacement type distributor may be used. No magnetos. Any battery type system, breaker point (single or double). 2 wire, magnetic pick-up, distributor system is allowed. Any type spark plugs and wiring may be used. Only one battery is

allowed per car/truck and must be mounted in the ARA spec. position. Alternators are optional. Only 12-volt battery system is allowed. Any Gel Cell battery is allowed.

## **COOLING SYSTEMS**

Aluminum radiators are allowed, mounted in the standard location. Any type hoses and water pump may be used. Belts and pulleys must be "vee" type configuration. No serpentine belt systems are permitted. No clutch fans allowed.

No reverse cooling systems. Fan shrouds may be used, but cannot extend past the rear edge of the cooling fan blades. Cooling systems must have a minimum one (1) quart overflow catch tank. It is recommended that the hose leaving the catch tank terminate at the base of the windshield on the right side, pointing up (to be in the driver's view).

## **EXHAUST**

Standard headers or upswept cross over headers are allowed. Headers with 180-degree reversion steps and merge collectors are allowed. The maximum exhaust ID is 3 1/2". Any type of muffler is allowed, providing that it meets the local track noise rules. Exhaust equalizer "H", and "X" pipes are legal. All exhaust systems must be round or oval and exit in front of the rear tire. The minimum exhaust systems ground clearance is 2 3/4".

External Header coating or header wrap will be allowed. No internal Header coating allowed.

In 2008 – Factory mass-produced after market Headers only. No custom made Headers will be permitted!

## **OIL SYSTEMS**

Any steel oil pan may be used. The minimum pan to ground clearance is 4". No dry sump systems allowed. Windage trays, crankshaft scrapers, remote oil coolers, regulators, and filters are allowed. Oil cooler location is optional. Hoses must be of a high-pressure design. No clamp type hoses in the oil system. The block can only be fed oil from one location (no dual feed systems). Stock or high volume oil system pressure accumulators are allowed and recommended.

## **TRANSMISSIONS - LIMITED LATE MODELS ONLY**

Only the following transmissions are legal for ARA competition. Any stock production type three (3) or four (4) speed manual transmission. No quick-change transmission is allowed. Transmission must have all forward and reverse gears functional. No direct or clutch-less transmissions are allowed.

Clutch diameter 5" minimum or 7" maximum.

## **CLUTCHES – LIMITED LATE MODELS ONLY**

No stock type clutches. Must be a minimum of a 2 disc or 3 disc clutch. Explosion proof bell housing is mandatory for ARA competition.

## **TRANSMISSIONS – PRO TRUCKS ONLY**

Transmission must be of same brand and make as the engine.

The following transmissions are legal for ARA competition: Chevy: T-350 or T-400 Ford: C-4 or C-6

Trucks can run a 4 speed, but will add 75 lb. weight rule

Transmissions may be converted to manual operation. Steel and cast hubs are allowed. Transmission must use a fluid filled torque converter. Modifications may be made to the internal transmission parts. All forward and reverse gears must be functional. No quick-change transmissions are allowed. Lockout shifters and transmission coolers are allowed.

Torque converters must be fluid filled, 11" minimum diameter, and a maximum stall speed of 3000 RPM.

With truck in forward gear, while using the brake, the driver must be able to hold the truck still at 1000 RPM.

## **DRIVE SHAFTS**

All drive shafts must be painted white and have the car number on it. Stock type steel drive shafts only. No lightweight, aluminum, chrome molly or carbon fiber drive shafts will be allowed. Two drive shaft loops must be installed; one loop between the transmission and the aft side of the driver's compartment,; and one loop between the aft side of the driver's compartment and the rear universal joint. The loops must be made of a minimum 2" x 3/16" flat bar steel, or 1" round .095" steel tube. Loops must go completely around the driveshaft.

## **REAR AXLES**

LIMITED LATE MODELS ONLY: The only approved rear end is the (" ford Floater. Rear suspension and mounts must remain in factory three (3) link location. No cambered rear-ends. No bending, twisting, or rotating of axle tubes, perches, or mounts are allowed, and no cutting, welding or grinding on rear end is allowed. The minimum width from hub to hub is 60".

The only gear axle ratios allowed are 4.11, 4.33 or 4.56. This will be strictly enforced.

Differentials may be locked. When locked, they must be welded securely or locked with a mini-spool, or a steel full spool. No limited slip devices, posi-trac, clutch, cone, or ratchet (Detroit Locker) type unites allowed. No gun-drilled axles allowed.

Panhard bar frame mount and rear end housing mount can be lowered 2".

PRO TRUCKS ONLY: A stock O.E.M. GM 10-bolt, 7.5". No cambered rear-ends. 58" minimum width hub to hub. No bending, twisting, or rotating of axle tubes, perches, or mounts are allowed, and no cutting, welding or grinding on rear end is allowed.

A 9" Ford Floater rear end may be installed with standard metric four (4) link mounts. No other modifications may be performed on rear housing.

Any readily available gear ratio that will fit inside the proper place that is factory stock, unaltered, 10-bolt 7.5", or optional 9" Ford Floater may be used. No custom made gears or ratios are allowed.

Differentials may be locked. When locked, they must be welded securely or locked with a mini-spool, or a steel full spool. No limited slip devices, posi-trac, clutch, cone, or ratchet (Detroit Locker) type units allowed. No gun-drilled axles allowed. After market axles are highly recommended for 10-bolt, 7.5".

## **CHASSIS**

All "NEW" chassis for the ARA Limited Late Models and Pro Trucks must be purchased through the Advance Racing Association office. All existing chassis will be grandfathered in and eligible for competition. Yard Arm is the only ARA approved chassis builder and repair center.

The only approved frame is General Motors 1978 to 1987, "G" Body, 198.1" metric frame. All measurements, lines, holes, etc...must retain the manufacturer's specifications.

## **CHASSIS – Cont'd**

An anti-penetration plate, minimum thickness of 16 gauge must cover door bars of the driver's compartment.

The ten (10) original attachment points, must be unaltered, and remain in the ARA spec. location. The original Height, Width, and Size may not be altered.

Other bars may be added to the chassis, provided they are ARA approved.

(2" x 3") rectangular steel tubing (minimum .095", maximum .125") may be used to replace the rear frame horns from the aft side of the spring-pocked perch (not the spring bucket), to the aft side of the stock frame. Tubing must maintain a minimum ground clearance of 10" measured from the bottom of the tubing to the ground.

All cars/trucks must have a center vertical roll bar (Earnhardt Bar) on the inside of the windshield. The bar must be constructed of 1 3/4" EW or DOM .095 tubing.

## **WEIGHTS**

**If you are a non-ARA truck, you must run our Hoosier approved tire and you must weigh 3100 lbs and have left percentage of 56 and nose percentage of 55**

Minimum weight at all times, before and after any event, is 2800 lbs.

The maximum left side weight is 56 % of the total weight.

No fuel, oil, or other fluids or dislodged parts of any kind may be added to the vehicle for post-race inspection.

All weight will be checked with the driver in the seat, helmet on the head, both hands on the steering wheel, feet on the pedals, and the driver in an upright position.

All added weight must be in block form. Weight may be placed in the "C" channel section of the frame. No weight may be placed in the driver's compartment. Any vehicle with improperly mounted weight will not be allowed to compete. All added weight must be painted white and have number of the car/truck clearly marked on the weight.

Minimum nose weight at all times must be : Limited Late Models – 53 % Trucks – 55 % Mid Am Cars – 50%

## **GROUND CLEARANCE**

Minimum ground clearance for the frame rails is 5 1/2" at all times.

Minimum ground clearance for all body parts is 3 1/2" at all times.

Minimum ground clearance for engine cross-member is 3" at all times.

Minimum ground clearance for mufflers and exhaust pipes are 2 3/4" at all times.

These heights will be measured from the lowest point, with the driver in the car/truck.

## **TREAD WIDTH/WHEEL BASE**

Maximum tread width is 65" measured center of tire to center of tire.

The wheelbase is 108", plus/minus 1/2", on both sides.

## **FRONT SUSPENSION**

Lower control arms, spindles, brake calipers, and lower ball joints must be stock O.E.M. for the GM, "G" body, 108.1", metric frame being used. No modifications of any type are allowed. Upper "A" arms must be 9" or 10" steel tubular design non-adjustable and use an O.E.M. any brand, non-adjustable ball joint. Cast appearing after market spindles are allowed.

Steel swaged tubes may be used to replace O.E.M. tie rod adjusters. Heim joints 1/2" or 5/8" can replace outer tie rod end only.

## **SPRINGS**

Springs may be replaced with ARA approved units. The rate may be changed. No custom wound springs are allowed.

Spring rubbers are allowed. Shims are not allowed.

## **SHOCKS**

*Shock rules for both Cars and Trucks* - Any steel bodied **non-adjustable** shock that will fit in the standard location **without modification** can be used. ie. No bump stops allowed.

Only one shock per wheel is allowed. Shocks must remain as manufactured.

A maximum retail of \$135 per shock allowed. Any race team may claim any shock on any corner from another race team for \$135.

## **SWAY BARS**

Any factory appearing sway bar 1 3/8" maximum, that mounts in the stock location, without alteration, may be used. No heim joints are allowed on the sway bar linkages. Sway bar rates may be changed. No adjustable or controllable sway bars are allowed. No spline ends.

No rear sway bars are allowed.

The only adjustment allowed is up and down on the mounting brackets. Must contact the "A" frame.

A small plate may be added at the bottom of the "A" frame to prevent wear.

## **BUSHINGS**

Any stock replacement bushing is allowed in the chassis or suspension. Spherical bushings are allowed.

## **STEERING**

The original, stock type steering box must be used, and bolted on in the stock locations, using the factory frame holes. Inner tie rod end, idler arms, pitman arm, and center drag link must be stock type, O.E.M., for the GM, "G" body, and 108.1" metric frame being used. The three steering box bolts must be drilled and safety wired. Quick Steers are allowed.

## **TIRES**

**Hoosier 980 is the official Tire** - Only **Hoosier** brand tires are allowed, and must be purchased from ARA, cannot be purchased from any other source.

No shaving, grooving or tire treatments of any kind.

All tires must have the ARA stamp. 27" and 26.5" tires can be used on both the right and left side.

**All teams will be allowed to purchase up to 4 tires per event per vehicle. Those tires must be used on only your vehicle that night during the feature. You will be allowed to purchase up to (8) tires at the practice session. The tires you purchase cannot be transferred to another vehicle. The only exception will be if valid proof is shown to an ARA official that the tire is not in good condition or will not hold air. That tire will be held by ARA for that event. Tires will only be sold the day of the event. No prior sales.**

## **WHEELS**

Wheels must be 15" x 8". Wheel offset may be 2 or 3 inches only. The minimum weight for each wheel is nineteen (19) pounds. A maximum of 1/2" spacer allowed per wheel.

## **FLUIDS**

All GM Performance Parts Crate Engines must use standard 92/93-octane pump gas.

Racing gasoline is allowed for ARA competition in 305 and 302 engines. No additives will be allowed (no nitrous oxide, nitro methane, nitro butane, propylene oxide, benzene, toluene, solvents, alcohols, etc.) No oxidizers may be added to the oil or fuel. The fuel and oil must pass odor, litmus, color, specific gravity, and any other test necessary to enforce this rule. ARA reserve the right to test any competitor's fuel and oil at any time, plus remove a sample for testing. No aviation gas allowed.

## **BRAKE SYSTEMS**

All components must be stock or O.E.M., for the GM, 1978-87, "G" body, 108.1", metric frame being used. This includes calipers, hubs, and rotors on the front, and rear rotors must be Coleman #L81-1178-87 or equal. Steel replacement racing hub is mandatory on the right front. No lightweight components are allowed. Twin master cylinders must be used. Brake pad and material is optional. Hydraulic brake proportioning valves may be used. No shut off valves or devices are allowed. Air duct, no larger than 4" in diameter, may be used to cool the brakes. No aluminum front or rear brakes and suspension components are allowed. Disc Brake Calipers- Any O.E.M., GM cast iron, calipers allowed.

Car or Truck must have working and operational 4 wheel brakes at all times. No brake shut-offs allowed.

## **BODIES**