



Arnold Oil Company

Street Stock - 2017

DRIVER RESTRAINT/SAFETY:

Reference Safety Rules in General Rules, Subject to Track Inspection and Approval, applies to all times car is on the track including packing. Fully charged fire extinguishers are mandatory in the driver's compartment and must be within reach of driver, must have a fill level gauge. All drivers are required to have a working **RACEceiver**.

Weight Rule – Minimum weight 3150 lb. with driver.

Minimum wheelbase of 107-inches with a maximum rear percentage of 53%

Any car with driver who scales over 53% rear percentage upon post-race tech inspection will be allowed to address any mud collected on the car and will have one chance to be rescaled, tech inspector will watch removal of mud from car.

All ballast weight must be painted white with readable car number and be securely mounted.

Body – Any American made full size passenger car or ½ Ton Single Cab Pick Up, El Camino, Cadillac or Station Wagon allowed. No compacts allowed. Minimum 22-gauge steel or .040 aluminum stock replacement or fabricated body panels allowed. Must have stock appearance, bodies cannot resemble a late model, and must have stock appearing front and rear roof supports. Hoods may be aftermarket fiberglass. Stock appearing plastic front nose and rear tail pieces are allowed, no wedge type late model nose pieces allowed. Rear spoiler and sideboards allowed, cannot exceed 6 inches in height with maximum length 12 inch sideboards. Spoiler cannot exceed width of car. Driver must be totally sealed off from engine, fuel cell, drive line, battery and track, interior may be decked.

Frames – Only American OEM production released stock factory frames allowed. All front clips must be stock and unaltered up to the firewall. No narrowing or modifying of the frame or cross member allowed. Frame may be notched for fuel pump clearance. Frame may be notched to make spring changes easier. Must be OEM frame from front of chassis to rear of chassis. Frame rails maybe reinforced. Frames may be X braced. Uni-body frames must tie frame together. Coil sprung cars may replace frame section behind rear-end with tubular rear clip of same length as stock material removed. Fabricated tubular rear clips allowed on leaf spring cars.

Roll Cage – Minimum of 1 ½ inch x .095 wall thickness round magnetic steel tubing. Must have a 4-point cage to protect driver. Must have supports extending into the front engine bay and rear trunk area tied into frame for additional support and strength. A minimum of (3) door bars are to be in driver's door for protection and at least (2) in the passenger side. Drivers side steel door plate minimum 18 gauge or 0.0049 inch required, must extend full length of door, may be welded into door bar system.

Bumpers / Nerf Bars – May have pipe support behind front nose and tail piece and may extend outside of frame to body, no bracing or reinforcement allowed outside of frame. Front bumpers may have a push bar in front of plastic nose piece but must be within stock frame horns. If stock bumpers are used along with normal bracing, steel chains or cables must be used in a manner which will catch bumper to avoid bumper falling off. Must fill void between bumpers and fenders and quarter panels with steel plate to prevent hooking, no sharp edges. Nerf bars may be outside of body in door area only, may not exceed over 3 inches from body. All front and rear rub bars and brackets must be inside body panels, front or rear wrap around bumpers must be inside body.

Must have a visible chain or loop for wrecker pick up in front and rear of car.

Suspension –

Front - All suspension parts must be GM to GM, Ford to Ford, Chrysler to Chrysler.

OEM stock or stock replacement spindles with the exception of aftermarket 3-piece GM Metric replacement spindles are allowed. Any other type of aftermarket or fabricated spindles are not allowed, Pinto or Mustang II spindles are not allowed. Must use stock lower A-Arms in the stock location, heim end lower A-Arms are not allowed. Lower A-Arm frame mounts cannot be moved, may be notched for clearance. Upper control arms may be aftermarket but must be a non-adjustable type arm. Upper control arm mounts on frame may be moved or altered for caster and camber adjustments. Any type of ball joint is allowed.

Rear - Upper control arms and lower trailing arms on coil sprung cars must mount in stock OEM location on frame. Multihole brackets allowed on rear end. Lower trailing arms must be OEM or stock replacement and may be reinforced, cannot be lengthened or shortened, must remain stock center to center length. Upper control arms may be stock, aftermarket or fabricated and may be adjustable but must remain bushing type, must be stock center to center length. Aftermarket bushings are allowed with the exception of any kind of monoballs or spherical balls are not allowed.

3-link rear suspensions are allowed, must use OEM or stock replacement trailing arms, must be stock length center to center, must be same length both sides. Maximum 36-inch top pull bar allowed measured center to center, must be solid without springs, bushings or biscuits. Minimum 26-inch panhard bar allowed measured center to center.

Leaf spring cars front leaf spring mounting brackets must be in stock location and may have only one mounting position, leaf springs must be the same height left to right on front. Lowering blocks allowed and may be adjustable, adjustable rear shackles, rear sliders and weight jacks are allowed on leaf spring cars.

Other than bushings or lowering blocks, no other aluminum suspension parts are allowed on coil sprung or leaf sprung cars. No independent rear suspensions allowed.

Springs – Coil springs must be steel front and back, leaf springs must be steel or composite. All springs must mount in stock position. Racing springs are allowed. Chrysler leaf springs are allowed only on Chrysler chassis which were OEM production released with leaf springs, Chrysler leaf springs are not allowed on GM or Ford. Rear coil springs may be moved forward or reward a maximum of 3 inches from the center of the rear-end housing but must remain on top of rear end. Any height spring front or back. Weight jacks are allowed on front and rear.

Shocks – Aftermarket steel racing shocks allowed, no aluminum shocks allowed. Heim end shocks, rebuildable shocks and gas shocks are allowed. Adjustable shocks or external reservoir shocks are not allowed. Shocks may be relocated. One shock per wheel.

Engine – GM

Crate Engine:

Must use unaltered sealed GM #88958602 or #19258602 crate engine.

Must use Holley Model 4150 HP, Part # 80541 650 CFM 4-barrel carburetor, all components including float bowls and main body must be Holley manufactured. Metering blocks and base plate may be aftermarket billet aluminum. May use one-inch-thick carburetor spacer, must use Moroso part #64940 with GM crate. Maximum 0.100-inch-thick carburetor gaskets only. MUST use original HEI distributor with MSD #8728 Soft Touch Rev Limiter with 6,200 rpm chip – cannot be within reach of driver.

Upon inspection, any different, altered or missing GM seal bolts will result in disqualification, loss of all points for the season, and a suspension. Oil pan may be replaced with Kevko pan #1090NRHw/ISP and Kevko pick up part# 1003 – ¾, Tech Inspector must be onsite to witness replacement of pan.

Any crate engine not using required spacer, distributor, rev limiter, pushrods, valve springs or rocker arms will result in disqualification.

Non Crate - Maximum 364 Cu. In.

Blocks – Only factory production OEM cast iron blocks are allowed. Aftermarket, 400 Cu. In. or Bowtie blocks are not allowed. Rotating Assy. – Any steel or cast crankshaft with a maximum stroke of 3.50 and a minimum weight of 45 lb.

All connecting rods must be steel, no titanium or aluminum rods allowed. Floating wrist pins are allowed. Pistons must be flat top cast or forged. Any piston ring allowed. Aftermarket balancers are allowed.

Valve Train – No roller camshaft or lifters. Maximum .550 valve lift measured at valve spring retainer. Any valve spring/retainer combination. No titanium parts allowed except retainers. Stud mounted roller rockers only, no shaft assemblies allowed. Poly locks, guide plates and stud girdles are allowed.

Cylinder Heads –Aluminum heads not allowed. Three angle valve jobs are allowed. No removing or machining of castings in the valve pocket. No porting, polishing, acid porting or gasket matching allowed. Heads may be flat or angle milled but must meet cc requirements. Any work done in the bowl area must be done with a 360 degree cut, with the valve guide as the center point.

The following are the only cylinder head options allowed:

GM:

Option 1: Any cast iron OEM factory production head including Vortec with a minimum 62 cc combustion chamber, straight or angle plug allowed. Max intake 2.02 & max exhaust 1.60.

Option 2: Any cast iron aftermarket head with a minimum 72 cc combustion chamber, Max intake 2.02 & max exhaust 1.60.

Option 3: World Products S/R Part # 043610 straight plug 67 cc. combustion chamber with 170 cc intake runners. May be milled to minimum 62 cc. Max intake 1.94 & max exhaust 1.50.

Any other aftermarket, Bowtie or GM high performance off road heads are not allowed.

Ford/Chrysler:

Any cast iron OEM Ford and Chrysler heads allowed with valves no larger the 2.04-inch intake and 1.70-inch exhaust. Ford may use World Products Ford part # 53040 -1 or - 2 cast # (I-061) (64cc chamber) stock replacement cylinder head allowed, head must remain as produced, seat angles, valve springs (1.437” max. O.D.) and valve sizes cannot be changed: three angle valve job only (absolutely no casting removal in valve pocket of head, for any reason).

Engine does not have to match manufacturer of body/frame, Example: Metric GM body/frame may run a Chrysler or Ford engine.

Engine setback - #1 spark plug must be even with or in front of ball joint

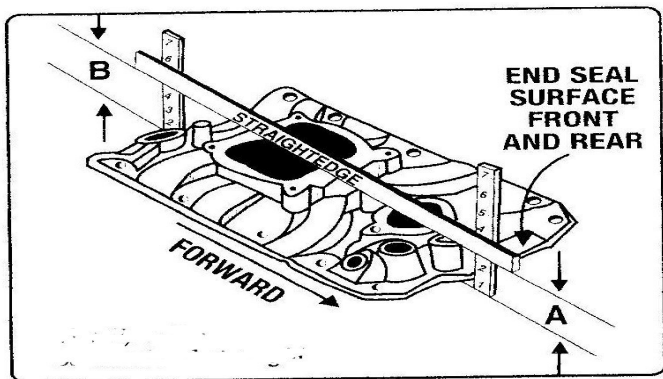
Carburetor / Intake:

Carb: Holley 4412 two barrel is the only legal carb. Must pass all Go-No-Go Gauges. Aftermarket metering blocks allowed.

2-barrel to 4-barrel carb adaptor allowed, 1 1/4-inch max height including gaskets. 4412 Ultra XP Carburetors are not allowed.

Intake: Any cast iron or aluminum intake manifold is allowed with a maximum carburetor base height of 6.25 inches. Sheet metal or tunnel ram intakes are not allowed. No Brzezinski, porting, polishing, acid porting, gasket matching or any other modifications or machine work allowed on intake.

Carburetor Base Height = (A + B) / 2 + Carburetor Adapters, Spacers, Gaskets.



Ignition: Any 12-volt ignition system. External coils and ignition boxes are allowed. No crank trigger or magnetos.

Must have a battery disconnect switch on outside of car within easy reach of Track Officials. Must be clearly marked Off/On and must disconnect all battery power to all electrical components. Traction control of any type is not allowed, if found with traction control device result will be forfeiture of all money for night, loss of all points for season and a 1-year suspension.

Exhaust – Any exhaust manifolds or maximum 1 3/4 inch tube headers with collectors. Step headers, crossover headers and fender headers are allowed. No 180 degree headers allowed. Y and H pipes are allowed. No Tri Y Headers or Lung Headers allowed.

Fuel/Fuel Cell: Pump gas, Racing fuel or Aviation fuel are the only fuels allowed. Methanol, alcohol or fuel additives are not allowed. Any mechanical or belt driven block mounted fuel pump. No fuel injection or electric fuel pumps.

Racing fuel cell required, maximum 22-gallon capacity, must be enclosed in a minimum 20-gauge steel container. Must mount with minimum one-inch square tubing or two solid steel straps around entire cell, two inches wide and 0.125-inch-thick, between frame rails and behind rear end. Fuel cell cannot be mounted lower than rear end axle tubes. Must have protection loops to prevent damage to fuel cell.

Fuel cell vents, including cap vent, must have check valves. If fuel cell does not have aircraft style positive seal filler neck/cap system a flapper, spring or ball type filler rollover valve is required.

Transmission / Driveline – Only OEM production transmissions allowed, no 5 or 6 speed transmissions, no overdrives, or no aftermarket racing transmissions allowed. Direct drive, couplers or any type of “in and out” boxes are not allowed. Any type of reverse mounted accessories driven off the rear of engine is not allowed.

Automatics must have a working forward and reverse gear. Minimum 10-inch functional torque converter, dummy converters not allowed. Automatics may run coolers provided driver is protected by shield to eliminate the danger of fluid reaching driver.

Standard transmissions with production gear ratios allowed, no re-gearing of transmissions with aftermarket gear ratios. Minimum 10.5-inch diameter clutch, no aluminum clutch components allowed. Mini clutches are not allowed. Standards must have a steel scatter shield.

Listed below are the legal gear ratios.

SAGINAW 3 SPEED	1st	2nd	3rd	SAGINAW 4 SPEED	1st	2nd	3rd	4th
0-Line	2.8	1.6	1.0	0-Line	2.84	2.01	1.34	1.00
	5	8	0	1-Line	2.54	1.80	1.32	1.00
1-Line	2.5	1.5	1.0		2.54	1.80	1.44	1.00
	4	0	0	2-Line	3.11	2.20	1.47	1.00
2-Line	3.1	1.8	1.0	3-Line	3.50	2.46	1.65	1.00
	1	4	0					
3-Line	3.5	1.8	1.0					
	0	9	0					

BORG-WARNER	1st	2nd	3rd	MUNCIE	1st	2nd	3rd	4th
T-16	2.86	1.72		M20 0-Line	2.56	1.91	1.48	1.00
T-10	2.43	1.61		M21/M22 0/1-Line	2.20	1.64	1.28	1.00
	2.64	1.75		M20 2-Line	2.52	1.88	1.46	1.00
	2.88	1.91						
Super T-10	3.44	2.28						

Drive Shaft: Minimum two-inch diameter drive shaft. Must be painted white with a 360-degree drive shaft loop required, constructed of at least 0.125 inch by two-inch steel, or one-inch tubing, mounted six inches back from front U-joint

Rear-End – Any OEM production or 9-inch Ford full floating rear-ends allowed. 7.5-inch GM 10 bolt metric rear end may be modified from trailing arm brackets outward to accept 3 inch tubing and 9-inch ford axles, may be a maximum of 3 inches wider. Bracing of rear-end optional.

Quick change rear-ends not allowed. All differentials must be locked, no torque dividing differentials or limited slip devices allowed. Steel components only, no aluminum components.

Steering – Only OEM or aftermarket stock replacement steering gear boxes allowed, aftermarket ratios are allowed. No rack and pinion steering allowed. Aftermarket power steering pumps are allowed, remote reservoir is optional. Power steering pump must be mounted in front of engine. Quick Steer box is allowed between gear box and steering wheel. All steering wheels must use quick disconnect adaptors.

Draglink, tie rods, pitman arm, sway bars and idler arms must be OEM or stock replacement, no tubular or heim end steering components allowed, no aluminum components allowed.

Brakes – Must have a minimum of 3 wheel working brakes. Disc brakes allowed on rear. All disc or hats must be steel and cannot be drilled or lightened. Aftermarket brake pedals and master cylinders are allowed, duel brake master cylinders are allowed. Brake bias gauges are allowed. Brake adjuster, shutoff valve, or proportioning valves are allowed and may be within reach of the driver for adjustment. Aftermarket stock replacement calipers are allowed, may be oversized or undersized, no aluminum or dual piston calipers allowed.

Wheels / Tires – Maximum 8-inch steel wheels, bead lock allowed only on right rear. No aluminum wheels. Any 8-inch Asphalt Takeoff, Hoosier G60 or American Racer KK704 are the only tires allowed. Tires may be ground, sipped, or grooved. No soaking or softening of tires allowed. Wheel spacers are allowed. **Misc.** - Aluminum radiator, racing fans and aluminum pulleys are allowed

Courtesy Rule:

Any car with “minor” rule infractions may be allowed to compete with weight penalties

ALL cars are subject to track inspection and approval before entering into competition, and may be subject for re-inspections. Any car which is determined as unsafe will not be allowed to compete until safety issue is corrected and car is declared safe for competition.

STS reserves the right to clarify or amend these rules as deemed necessary

If you have questions or need further clarification, please do not hesitate to contact:

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