



## DS&S & Dawson Recycling

### E Mod - 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**.

**FRAME:** 1978-1987 OEM midsize GM metric full frame only. Minimum wheelbase 107-inches, maximum 109- inches, both sides. Frame must be full and complete, cannot be widened, narrowed, shortened, lengthened, cut, bent, or altered in any way. All frame bolt holes must remain in OEM location. Front frame horns may be removed in front of steering box. Front frame may be cut for radiator clearance. Frame may be notched for seat clearance.

Transmission cross member mounts may be removed, no further forward than frame welds. Rear of frame, behind upper shock mounts, may be replaced with round, square, or rectangular tubing. No part of frame can be lower than five inches from ground except front cross member. No other frame alterations allowed.

**ROLL CAGE:** Must consist of continuous hoops, minimum 1.5 inch O.D. tubing, with a minimum wall thickness of .095 inch for main cage. Cages must be steel or chrome-moly. Main cage no further forward than rear of engine and no further back than front edge of rear tire. Four bars, two per side, may extend from main roll cage to main frame points in front of the upper control arms and may have two additional braces per side to the main frame. Six bars may extend from the main cage to the rear. X-bracing is allowed. Driver's head must not protrude outside cage with helmet on. Roll cage must be securely supported and braced with minimum one cross bar in top halo. All bars forward of cage must be lower than hood.

**DOOR BARS:** Minimum three driver side door bars required, minimum 1.5 inch O.D. and .083 inch wall thickness, must be parallel to ground and perpendicular to driver, and welded to front and rear of roll cage. Minimum two passenger side door bars required, must have at least one cross door bar, horizontal or angled. Steel door plate required, must extend from rear of roll cage to in front of driver, minimum 18 gauge/.049-inch.

**BODY:** Must be same width, front to rear, and parallel to OEM frame. Cooling holes allowed. Nose panel may be no wider than 2 inches outside of front frame horns and no lower than 4 inches. Nose panel must remain within confines of front bumper. No plastic nose pieces. Engine compartment must remain open (no side panels). Aluminum or fiberglass hoods allowed, must completely cover top of radiator and engine, extending from nose to interior deck and enclosed at rear. No plastic body panels or filler panels allowed. Must have complete interior deck from side to side, must be aluminum or sheet metal. Quarter panels must remain 90-degrees to ground, maximum 45-degree bend 4-inches from bottom and 2-inches from top of doors and quarters. Sail Panels must extend from the roof to the back of the car, no short sail panels allowed. Sail panel height at rear of car maximum 3 inches, sail panels may not extend past rear of deck.

Spoilers are not allowed.

**BUMPERS/RUB RAILS:** Two bar front and single bar rear steel bumpers must be on car at all times. Must be welded or bolted securely using minimum 0.375 inch bolts, maximum 1.50-inch OD .095-inch tubing on front and 1.75-inch OD .095 tubing on rear. Maximum 1.50-inch OD tubing .095-inch wall thickness fuel cell protection bar required, must cover rear and extend past both sides of cell, may be welded to rear bumper. Minimum 16" from ground and maximum 20" from ground for front and rear bumpers. Rear bumper may be maximum 6-inches beyond rear deck. All bumpers and rub rails must be capped with no sharp edges. Single bar rub rail from front wheel to rear wheel allowed on each side, no center supports allowed, maximum 1.50-inch O.D. tubing and .095-inch wall thickness, must be attached to cage at front and rear.

**DRIVER COMPARTMENT:** Must have minimum three 5/16 inch O.D. windshield bars in front of driver. Aluminum cowl panel in front of driver can be no wider than cockpit. Aluminum high-back seat only, must be securely bolted, using minimum 0.375-inch bolts, to roll cage and support system. Floor pan must be metal or aluminum and cover entire driver compartment. Bottom of seat can be no lower than bottom of frame rail. Driver must be sealed off from track, driveline, engine, fuel cell, canisters and pumps. No oil coolers allowed in driver's compartment. No devices that would enable driver adjustment to alter wheelbase or for weight jacking while car is in competition. No mirrors of any kind.

**FRONT SUSPENSION:** All components must be steel. May use metric aftermarket tubular or OEM upper control arms. Upper control arm mounts may be modified and moved for caster and camber adjustments. Lower A-Arms must be OEM or OEM stock replacement. Lower A- Arm frame mounts must remain stock OEM and remain in stock OEM location on frame, may be notched for clearance. Adjustable spring spacers are allowed, no weight jacks allowed. Control arm bushings may be aftermarket, but no offset or bearing or heim type. OEM or OEM replacement ball joints allowed, may be tacked.

**STEERING:** All components must be steel, unaltered OEM in OEM location and match frame. No grinding, lightning or welding on any steering parts. Spindles may be reamed and bolt on spindle savers are allowed. Steel steering shafts and knuckles only. Steering quickener (optional), steering wheel and quick release (required) may be aluminum.

Power steering pump and reservoir must remain one unit, serpentine belt system will be allowed. Driver compartment steering may be modified, must be kept on left side. No rack and pinion.

#### **SHOCKS:**

The following steel bodied, factory welded, non rebuildable shocks are allowed in OEM stock mounting position.

- PRO - SS100, SS201 and SS200 Street Stock
- QA1 - EC Series Stock Mount
- AFCO - 10 Series Street Stock Mount
- DOETSCH TECH – 0101, 0102 & 0103 Street and Hobby Stock
- OEM or OEM replacements (But no OEMBilstein) *No air shocks allowed, No Bilstein shocks allowed.*

*No modifications or custom valved shocks of any kind are allowed.*

Shocks with grinding marks, re-welds or shocks which are painted over will result in DQ.

Shocks must have OEM stock type rubber ends, no screw on or welded on type rod ends of any kind. No bump stops internal or external, all shocks must fully collapse and extend.

Shocks must be in OEM mounts and location. Mounting spacers are allowed.

Shocks will be eligible for a \$50.00 per shock claim – one or all four. Shock claim procedures:

- Top four finishers in main event are subject to shock claim.
- Must have raced on previous 2 consecutive race nights in order to claim.
- Must start and finish main event on lead lap.
- Claim must be made with US currency (cash) at Tech Pad within 10 mins. of the completion of the main event.
- Each driver may claim up to four shocks per year.
- Any driver may only have a maximum of 4 shocks claimed per year. ■ Refusal of claim will result in DQ and forfeiture of all points.

**SPRINGS:** One steel spring (racing allowed) per wheel only. Minimum 4.5-inches OD, non-progressive coils only. No torsion bars or air bags. **REAR SUSPENSION:** Control arms and trailing arms and mounts must be steel unaltered OEM in OEM stock location. Adjustable spring spacers allowed, may be dropped as long as they remain in OEM location. If upper spring cup uses threaded rod, it must be securely welded to chassis, no weight jacks allowed. Lower spring cups must be centered on housing. Control and trailing arms may be reinforced, but cannot be shortened or lengthened, must remain OEM center to center lengths. Bushings may be aftermarket, No offset, No bearing or heim type bushings allowed. Bushings cannot be drilled. No suspension parts may be altered or lightened. No aluminum parts allowed other than bushings.

**REAR END:** Must use OEM 7.5-inch GM 10 bolt rear end (bracing optional). No Ford or floater rear ends allowed. Steel components only. Rear-end from trailing arm bracket out may be modified with 3-inch axle tubes to accept 9-inch Ford axles.

When using Ford axles rear-end may be a maximum of 3 inches wider than OEM stock width. Lower trailing arm brackets must remain in OEM location on original 7.5-inch tube housing. Aftermarket axles, mini-spools and C-clip eliminators allowed. Locked rear ends only, no torque dividing differentials allowed. No full or aluminum spools allowed. Pinion angle cannot be changed.

**TIRES/WHEELS:** Southwest Speed Spec Tire – 26x8x15 or 8-inch Asphalt take offs will be the only tires allowed. Tires may be ground, sipped or groved. Any offset wheels. No bead locks allowed. No bleeder valves. Must use minimum 1-inch O.D. lug nuts and 0.625- inch studs are recommended. Wheel spacers are allowed but not with OEM studs. Wheel adapters are treated as spacers and may be aluminum, maximum 1.50-inches thick.

**BRAKES:** 4 wheel brakes are mandatory, drum or disc. Must maintain minimum OEM dimensions for hubs/rotors and calipers cannot be lightened. Bolt pattern may be changed. 0.625-inch studs allowed. Single or dual aftermarket master cylinders allowed. Adjustable dual pedal brake bias assembly allowed but may be adjusted by driver. Rear rotors may be aftermarket, minimum 0.810-inch thickness, maximum 12-inch O.D. Vented rotors only, no scalloped, ceramic coated, single phase or drilled rotors allowed. Rear caliper brackets must be welded to housing. Additional proportioning valve is not allowed, no exceptions.

**EXHAUST:** Stock exhaust manifolds with a maximum 3-inch exhaust pipe off the manifold with a minimum length of 36 inches long, exhaust pipe must turn down or -Shoenfeld Part Number 161 Headers.

**FUEL SYSTEM:** Racing fuel cell required, maximum 22-gallon capacity must be in minimum 20-gauge steel container. Must mount with minimum two solid steel straps around entire cell, two inches wide and 0.125-inch-thick, between rear frame rails cannot be lower than rear end. 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. No part of cell can be lower than protective tubing. OEM mounted mechanical push rod fuel pumps only. No regulators, bypass fuel systems, pressurized, or return lines allowed.

**CARBURETOR:** 1 single (one) Holley (unaltered) #4412 500 cfm two barrel may be used on any engine (float bowl must face forward). Circle track floats may be installed. No other carburetors allowed. Any one-piece adapter allowed, maximum 1.250-inches thick, including gaskets. No throttle bore adjustable carburetor spacers. No cool cans. Any air cleaner allowed. No cold air boxes or ducting of any kind between engine and hood.

**FUEL:** Only Gasoline or Racing fuel allowed. No E85, No Methanol. No performance enhancing additives or scented additives. Fuel must pass both dielectric meter and chemical tests. Fuel sample may be taken from any car at any time

**WEIGHT:** Minimum weight limit of 2,500 pounds with Maximum of 55% rear weight after race with driver in car. Ballast must not be used in driver compartment or outside body. All ballast must be securely mounted and painted white with readable car number on it. No titanium, magnesium, stainless steel or carbon fiber components. Solid steel fasteners only.

**BATTERY/STARTER:** One 12-volt battery only. Must be shielded and securely mounted. Aftermarket starter allowed, must bolt in OEM location. Must have capability of starting without being pushed or pulled. Must leave initial staging area on demand, unaided, or go to rear of that race.

**GAUGES/ELECTRONICS:** \*\* All Engines will be required to run an MSD soft touch rev control part # MSD- 8728 with a 6000 RPM chip \*\*. The rev control box must be located on the deck in plain sight and out of the reach of the driver. All wires from the rev control must be easily accessible by the tech personnel and not be routed anywhere near the driver's compartment. No unapproved cameras, transmitting or listening devices, timing retard controls, or digital gauges (including tach). No electronic monitoring computer devices capable of storing or transmitting information except analog tach. OEM style ignitions only. GM: HEI distributor (must remain one unit) or point distributor allowed. Any module may be used that fits inside the distributor with no alteration. Vacuum advance may be removed and pick-up coil locked. No external coils allowed, unless using point distributor. No GM or aftermarket ignition boxes allowed. OEM type alternator with internal regulator allowed. No electronic traction control devices.

**TRANSMISSION/DRIVE SHAFT:** Only OEM production Turbo 350 or Power Glide Transmissions allowed. No aftermarket transmissions allowed. No 'in and out' boxes or quick change devices allowed. With engine running and car in a still position, must be able to engage car in gear and move forward, then backward. Functioning shift levers must be in OEM location. Transmission fluid coolers allowed. Flexplate and converter must be steel, Minimum 10- inch diameter steel torque converter. No direct drives, couplers, valved pumps, or bleeder style valve bodies. Must have at least one forward gear and reverse gear, gears must function. Must have SFI certified flexplate safety shield. Steel OEM style flexplate only, must be bolted directly to end of crankshaft. Transmission scatter shield highly recommended.

**Drive Shaft:** Minimum 2-inch diameter, white, steel drive shaft only. Steel slip-yokes only. 360-degree drive shaft loop required, constructed of at least 0.125-inch by 2-inch steel, or 1-inch tubing, mounted 6-inches back from front U-joint.

**ENGINE COMPARTMENT:** Rear of engine (bellhousing flange) must be mounted at least 70-inches forward from centerline of rear axle. Minimum 11inch engine height from ground to center of crankshaft. One radiator allowed, may be aluminum, 27-inches by 19-inches maximum in size, must be mounted in front of engine, catch can required. High pressure radiator cap and electric fans allowed. No sprinklers. Power steering pump and reservoir must remain one unit and mount in front of engine. Side engine mounts only (OEM or 45-degree style) must be steel, aluminum mid-plate allowed. **ENGINE SPECIFICATIONS:** All engines must be able to be used in conventional passenger car without alterations. External engine casting and threaded holes cannot be altered. No aluminum, titanium or carbon fiber components allowed.

**BLOCK:** Must use OEM steel passenger vehicle production block only. No GM bowtie, Ford or Chryslers allowed. Approved blocks are: GM (Chevy only): 283, 302, 305, 307, 327, 350. Maximum cubic inch limits: GM 364 no tolerance. No 400 or larger cubic inch parts allowed. 4 valve relief pistons only, no gas ported pistons. 3.48-inch maximum GM stroke. Maximum 170 lbs. per cylinder compression, no tolerance. Compression checked with one spark plug removed, turned five engine compression revolutions. Engines may be balanced and block decked. Oil filter system must remain OEM. 'Wet' sump oiling system only. No accumulators. OEM stock or OEM replacement steel crankshaft only – cannot be lightened (no aeroing, bullnose, knife edge, undercut or drilling of second or third rod throws allowed. OEM stock or OEM replacement steel rods only - GM must use maximum 5.7-inch rod. No cap screws. No splayed main caps. Racing oil pans allowed. (One-inch inspection hole required.). No obstructions to crank and rods. If obstructions are present, must remove pan for inspection. Engine bolts may be aftermarket. Fluid dampener balancer allowed. No roller bearings allowed. **CYLINDER HEADS:** Only GM OEM approved head numbers are (last 3 digits): 126, 185, 336, 441, 445, 487,493, 598, 624, 862,

882, 920, 993, 997, with valve no larger than 1.94-inch intake and 1.50-inch exhaust. Valve sizes cannot be changed. No porting, polishing, or unapproved alterations to cylinder head. No vortec, bowtie, or aftermarket heads allowed. Flat milling allowed, no angle milling allowed.

Guide plates, screw-in shouldered studs (0.375-inch max) and poly locks allowed. No stud girdles. Stamped steel, OEM style, stud mounted (0.375-inch max) rocker arms only. Any length push rods allowed. OEM diameter springs (GM – 1.250 inch maximum O.D.) must match heads. No beehive valve springs allowed.

**INTAKE:** Unaltered, OEM cast iron low rise, two- or four-barrel intakes allowed. No aftermarket, OEM hi-rise, marine or bowtie intakes allowed. All intakes must have unobstructed 0.250-inch vacuum fitting. Belt driven, OEM style water pumps only, no aluminum water pumps on Chevy engines.

**CAMSHAFT:** Non-roller hydraulic cam/lifters only. Lifters must remain unaltered OEM lifter bores cannot be altered. OEM firing order cannot be changed (GM 1-8-4-3-6-5-7-2). All makes of engines must pull 15-inches of vacuum at 1000 RPM. Vacuum must be pulled on intake vacuum fitting, not carburetor. No alterations of any kind may be made at time of tech. Track equipment being used for tech is final. Lifter bores cannot be altered. Must be chain driven, no gear/belt drives.

*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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