

RULE SUBMISSION FOR ANDRA

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Details of involvement in Drag Racing:

1978->1980 competed in Modified eliminator with X/D. Reset national record a number of times. Won a number of meetings including Winternationals.

1988-1997 competed in Super Stock in DD/G. Held the national record a number of times. Won a number of meetings including Grand Final at Eastern Creek raceway and runner up at Nationals and Winternationals.

2011: Currently co-owner of CC/MD

Rules Proposal

The rules proposal is to include a new forced induction 4 cyl Dragster class in Competition Eliminator.

Background

The only class in Comp eliminator which currently allows for 4 cyl dragsters is EE/D & EE/DA. Although it allows for 4 cyl engines, at a weight break of 6.0 lbs/cube it is really aimed at a smaller capacity V8 or 6 cyl engines.

The most common engine size for performance 4 cyl automotive engines is 2 litre capacity. All the major manufacturers have a suitable mass produced engine of this capacity and most have a large supply of aftermarket performance equipment available for them. I have therefore based my proposal on this engine size. The class I am proposing is very similar to NHRA'S I/Dragster class.

A typical Turbocharged 4 cyl Chrome Moly Dragster with automatic transmission and all relevant safety equipment (front and rear wings) would weigh in the vicinity of 1500lbs with an average size driver. Therefore the weigh break would need to be 12.00 lbs/cubic inch so as not to require exotic expensive materials to reach minimum weight. I propose that a minimum weight of 1500lbs be set.

The most common form of forced induction with modern EFI 4 cyl engines is turbocharging. I have therefore based my proposal on this. If there is a requirement to include other forms of forced induction, this can be done at a latter date but it would require a continuing scrutiny to ensure parity is maintained.

I propose that rather than include the requirement of a Boost Limiting Valve, the performance level be limited by size of the turbo compressor wheel inducer

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diameter. The size would be a maximum of 76mm which all major turbo manufacturers can supply. This would not require any additional cost to the competitor and would be easily monitored by ANDRA. NHRA use the inducer diameter as the means to limit performance in all their turbo classes with great success. The 76mm inducer dia is the same as required by NHRA in I/Dragster.

The anticipated performance would be in the low to mid 7 second area which is in keeping with the current performance level of existing Comp Eliminator vehicles. The index for manuals would obviously have to be lower than auto vehicles. There are a number of current vehicles (CC/MD's) which would be eligible for this class and a number which are currently being constructed.

Proposed class Criteria

FF/D & FF/DA

333 kg/litre (12.00 lbs/cube) or more for turbocharged engines using mechanical or electronic fuel injection. Restricted to Automotive 4 cyl engines using factory cast iron or cast aluminium cylinder blocks and cylinder heads. No aftermarket billet engine blocks or cylinder heads permitted. Minimum weight 680kgs (1500 pounds) including driver.

Turbochargers.

FF/D & FF/DA limited to single turbo with maximum 76mm compressor inducer diameter (twin turbos prohibited in FF/D & FF/DA).

Fuel

Methanol, ethanol or petrol only. No nitrous oxide permitted.

Does the rule protect the safety of participants and spectators?

All current safety requirements would be applicable.

Is the rule a positive step for the sport?

Most definitely. I believe we need provide areas where the current generation can compete with their sport compact origins to ensure that mainstream Drag Racing continues to attract new competitors.

Is the impact of the rule on other classes & brackets a positive one?

Yes. It would provide additional competitors for comp eliminator which would help to ensure its survival. The added variety would create more spectator interest.

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Is the rule practical and enforceable?

Yes I believe it is practical and enforceable.

Is the cost of complying with the rule reasonable for competitors?

The proposed rules are designed to limit the cost to be competitive especially the non requirement for the Boost Limiting Valve..

- C/D - 4.50 or more pounds per cubic inch, any size true wedge (inline valve) head; 1,350-pound minimum; V-8 only.
- C/DA - 4.50 or more pounds per cubic inch; 1,350-pound minimum; any size true wedge (inline valve) head, V-8 only, automatic transmission with converter only.
- D/D - 5.00 or more pounds per cubic inch; V-6, V-4 engines only; 1,000-pound minimum.
- D/DA - 5.00 or more pounds per cubic inch; 1,000-pound minimum; V-6, V-4 engines only, automatic transmission with converter only.
- E/D - 4.50 or more pounds per cubic inch; inline or opposed 5 or 6-cylinder engines.
4.40 or more pounds per cubic inch; inline or opposed 5- or 6-cylinder engines with stock production heads; 1,000-pound minimum.
- F/D - 7.00 or more pounds per cubic inch; inline 4-cylinder engines only.
7.50 or more pounds per cubic inch; for inline 4-valve, 4-cylinder engines only; 850-pound minimum.
- G/D - 8.40 or more pounds per cubic inch; opposed 4-cylinder engines only, 155-cubic-inch maximum as produced; 850-pound minimum.
- H/D - 9.80 or more pounds per cubic inch; 1,800-pound minimum; turbocharged, 6-cylinder, 2- and 4-valve engines only.
- I/D - 11.50 or more pounds per cubic inch; 1,500-pound minimum; turbocharged, 4-cylinder, 2- and 4-valve engines only.

REQUIREMENTS & SPECIFICATIONS

ENGINE: 1

CYLINDER HEADS

Maximum two valves per cylinder except as noted. Classes A/D, B/D, and D/D, any cylinder head permitted. Class C/D restricted to true wedge (inline and parallel valves) heads only; splayed or canted valve heads prohibited. E/D, F/D, and G/D, any head permitted. H/D and I/D, billet head prohibited.

ENGINE

Any naturally aspirated, internal-combustion, reciprocating, automotive-type engine permitted. Maximum one engine. See General Regulations 1:2.

FUEL

Methanol accepted in H/D and I/D. All other classes, NHRA-accepted racing gasoline only. Propylene oxide and/or nitrous oxide prohibited. See General Regulations 1:6.

INDUCTION

Any induction system permitted. Electronic fuel injection must be closed, OEM-type system; i.e., may monitor only engine functions. Monitoring of vehicle performance criteria, wheel speed, driveshaft speed, vehicle acceleration, etc. by fuel-injection system prohibited. All aftermarket OEM-type electronic fuel injection must be NHRA-accepted. A current list of NHRA-accepted electronic-fuel-injection systems is available on NHRA.com. See General Regulations 9:1.

OIL SYSTEMS

Dry-sump oil systems permitted. Any oil pump configuration permitted; may be combined with other pump functions.

TURBOCHARGER

Permitted in H/D and I/D classes only. H/D limited to maximum single 74mm or maximum twin 58mm turbocharger. I/D limited to maximum single 76mm turbocharger only (twin turbos prohibited).

VENT TUBE BREATHERS

Mandatory. See General Regulations 1:13.

DRIVETRAIN: 2

CLUTCH, FLYWHEEL, FLYWHEEL SHIELD

Flywheel and clutch meeting SFI Spec 1.1, 1.2, 1.3, or 1.4 mandatory. Flywheel shield meeting SFI Spec 6.2 or 6.3 mandatory on all cars using SFI Spec 1.2 clutch (three or more discs) or SFI Spec 1.3 or 1.4 clutches (two discs max). Flywheel shield meeting SFI Spec 6.2 mandatory with SFI Spec 1.3 or 1.4 clutch using three or more discs. Flywheel shield meeting minimum SFI Spec 6.1 or 9.1 mandatory on all other cars. Multi-stage lockup-type clutch prohibited. Clutch release must be manually operated by driver's foot: Electronics, pneumatics, hydraulics, or any other device may in no way affect the clutch operation. NHRA-accepted physically challenged hand controls permitted. See General Regulations 2:3, 2:5, 2:6, 2:9.

DRIVELINE

Anti-blowback device mandatory in Classes A/D, B/D, C/D, and D/D. See General Regulations 2:1, 2:4.

TRANSMISSION, Automatic

Permitted in A/DA, B/DA, C/DA, D/DA, E/D, F/D, G/D, H/D, and I/D. See Section 10, Transmission, Automatic, for details.

TRANSMISSION, Manual

Permitted in A/D, B/D, C/D, D/D, E/D, F/D, G/D, H/D, and I/D. See Section 10, Transmission, Manual, for details.

BRAKES & SUSPENSION: 3

BRAKES

Two rear-wheel hydraulic brakes mandatory. Hand brake, if used, must be located inside roll cage. Steel brake lines mandatory. All brake lines passing engine on any rear-engine car must be shielded. See General Regulations 3:1.

SUSPENSION

Any automotive suspension permitted. Rigid-mounted rear axles permitted. Rigid-mounted front axles permitted if wheelbase is 120 inches or more. Any front suspension using a beam or tubular axle must have radius rods attached to frame. Radius rods not mandatory on front axles rigidly mounted 18 inches or less from kingpin axis. See General Regulations 3:4.

FRAME: 4

BALLAST

Permitted. See General Regulations 4:2.

DEFLECTOR PLATE

Must be installed between roll cage and engine on all rear-engine cars to protect driver and fuel tank. Minimum material thickness: .125-inch aluminum or .060-inch steel. See General Regulations 4:3.

PINION SUPPORT

Mandatory on all front-engine cars. See General Regulations 4:9.

ROLL CAGE

Mandatory. Chassis must be recertified every three years by NHRA and have serialized sticker affixed to frame before participation. A/D, B/D, C/D, D/D, A/DA, B/DA, C/DA, D/DA, H/D, and I/D must conform to SFI Spec 2.5B (rear engine) or 2.4B (front engine); all other vehicles must conform to SFI Spec 2.7B (rear engine) or 2.6 (front engine). (Rear-end-mounting and wing-support portions do

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