3.11.5 DRAGSTER

CLASS DESIGNATION: /D, /DA, /DI, /DIA CLASS HANDICAP SYSTEM - FULL TREE START

ELIMINATOR: COMPETITION

Decogloze

Competition Eliminator, Dragster - Craig Geddes (High Octane Photos)

## Class Description;

Dragsters are the epitome of "all-out" vehicles built exclusively for Drag Racing. They are unique to, and symbolic of the sport.

## Class Designations;

AA/D, BB/D, BB/DA, CC/DA, EE/D, EE/DA, FF/D, FF/DA,

RR/DI, RR/DIA, RRR/DI, RRR/DIA,

A/D, A/DA, B/D, B/DA, C/DA, D/DA, E/D, E/DA, F/D, F/DA

The suffix A denotes vehicles using OEM planetary transmissions (refer Definitions, "OEM Planetary Transmission") and torque converters, which will use a different Class Handicap. The suffix I denotes vehicles using EFI.

NOTE: For D/DA engine must be sealed prior to competition due to level of engine restrictions.



Designation	Weightbreak/ Details
AA/D	121.79 kg/litre (4.40 lbs/cube) or more, for V8 engines using Hemi or non water jacket cylinder heads, maximum of three valves and one spark plug per cylinder. Mechanical Supercharging/ Turbocharging or Nitrous Oxide injection permitted. Billet, forged or cast Aluminium blocks permitted. 113.49 kg/litre (4.10 lbs/cube) or more, for V8 engines using cast water jacketed canted valve or true wedge cylinder heads, maximum of two valves and one spark plug per cylinder. Mechanical Supercharging/ Turbocharging or Nitrous Oxide injection permitted. Billet, forged or cast Aluminium blocks permitted.
BB/D & BB/DA	121.79 kg/litre (4.40 lbs/cube) or more, for V8 engines using Hemi or non water jacket cylinder heads and Iron block. 131.47 kg/litre (4.75 lbs/cube) or more for V8 engines using Hemi or non water jacket heads and cast Aluminium or Iron block. Maximum of three valves and one spark plug per cylinder. Mechanical Supercharging/ Turbocharging or Nitrous Oxide injection permitted.  113.49 kg/litre (4.10 lbs/cube) or more, for V8 engines using cast water jacketed canted valve or true wedge cylinder heads, and Iron or cast Aluminium block. Maximum of two valves and one spark plug per cylinder. Mechanical Supercharging/Turbocharging or Nitrous Oxide injection permitted.
CC/DA	124.56 kg/litre (4.50 lbs/cube) or more, for V8 engines using cast Aluminium or Iron blocks with capacity limit of 366 cubic inches. Cast in water jacket true wedge or canted valve cylinder heads only, Aluminium castings are optional. Mechanical Supercharging only, limited to maximum of 8/71 GM style with standard rotor length, diameter and helix. Refer Class Regulations.
EE/D & EE/DA	166.07 kg/litre (6.00 lbs/cube) or more power added using carburetion, mechanical or electronic fuel injection. Restricted to 6 or V8 engines using Cast Iron or cast Aluminium blocks with a maximum capacity of 285 cubic inches. No billet engine blocks. Factory or aftermarket cast Aluminium or Cast Iron cylinder heads only. No billet cylinder heads. Turbocharged engines using EFI must use ANDRA approved ECU software limited to maximum 40 psi (2.7 bar) boost. Limited to one non-adjustable MAP sensor with no restriction in line between MAP sensor and ECU. Minimum weight 544.31 kg (1200 lbs) including driver.

Designation	Weightbreak/ Details
FF/D & FF/DA,	276.79 kg/litre (10.00 lbs/cube) or more power added using carburetion, mechanical or electronic fuel injection. Restricted to 4 cylinder engines only. Motorcycle engines allowed but must have integral gearbox. Turbocharged engines using EFI must use ANDRA approved ECU software limited to maximum 40 psi (2.7 bar) boost. Limited to one non-adjustable MAP sensor with no restriction in line between MAP sensor and ECU. Minimum weight including driver; 408.23 kg (900 lbs) for motorcycle engines, or 453.59 kg (1000 lbs) for automobile engines.
RR/DI & RR/DIA	477.48 kg/litre (8.625 lbs/cube) or more for an EFI two rotor, Turbocharged engine using ANDRA approved ECU software. Limited to 40psi (2.7bar) boost. Limited to one non-adjustable MAP sensor with no restrictions in line between MAP sensor and ECU.
RRR/DI & RRR/DIA	179.92 kg/litre (6.50 lbs/cube) or more for an EFI triple rotor, Turbocharged engine using ANDRA approved ECU software. Limited to maximum 40psi (2.7bar) boost. Limited to one non-adjustable MAP sensor with no restriction in line between MAP sensor and ECU.
A/D & A/DA	101.03 kg/litre (3.65 lbs/cube) or more, no power adders.
B/D & B/DA	124.56 kg/litre (4.50 lbs/cube) or more, no power adders.
C/DA	124.56 kg/litre (4.50 lbs/cube) or more, no power adders. Restricted to V8 engines using Iron blocks with maximum capacity of 410 cubic inches. Minimum weight 725.75 kg (1600 lbs) including driver.
D/DA	124.56 kg/litre (4.50 lbs/cube) or more, no power adders. Engine size restricted to 340.00 to 365.00 cubic inches. RPM limit for D/DA is 9200 rpm. Minimum weight 693.99 kg (1530 lbs).
E/D & E/DA	138.39 kg/litre (5.00 lbs/cube) or more, no power adders, using carburetion, mechanical or electronic fuel injection. Restricted to 6 or V8 engines using Cast Iron or cast Aluminium blocks with a maximum capacity of 285 cubic inches. No billet engine blocks. Factory or aftermarket cast Aluminium or Cast Iron cylinder heads only. No billet cylinder heads. Minimum weight 453.59 kg (1000 lbs) including driver.
F/D & F/DA	138.39 kg/litre (5.00 lbs/cube) or more, no power adders, using carburetion, mechanical or electronic fuel injection. Restricted to 4 cylinder automobile engines only. No motorcycle engines allowed. Minimum weight including driver 453.59 kg (1000 lbs).

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## Class Regulations;

**Cylinder Heads:** Excepting E/D, E/DA, EE/D, EE/DA, C/DA and D/DA any cylinder head or modification permitted.

For E/D, E/DA, EE/D, EE/DA and C/DA only, any mass produced OEM Cast Iron cylinder head permitted, or any of the following aftermarket Cast Iron cylinder heads are permitted;

a. Chevrolet: GM Cast Iron Bowtie (all), World Products- Sportsman II

011150, Casting # I-037 and S/R Casting # I-052

b. Chrysler: Mopar Performance - W2 (all)

c. Ford: World Products - 053030, Casting # I-056 and # I-057

World Products - 053040, Casting # I-061

For C/DA only, the following Aluminium cylinder heads are permitted;

a. Chevrolet: Part No 14044861-2 (Casting No 14044861)
 Part No 14011076 (Casting No 14011077)

Part No 12363410 (supersedes 14011076-7)

Part No 19331427

Brodix Dragon Slayer DS225 P/N: 1320000

Brodix Race Rite RR200 P/N: 1010002 A (Angle Plug)

and 1010003 S (Straight Plug)

b. Chrysler/Mopar: Part No P4529335 (Stage V1), Part No 4349600

Brodix B1 BA 195 P/N: 3180000

Trickflow Specialties P/N: TFS-6141T783-C00

Indy 360-1, Indy 360-2

c. Ford: Part No TFS-A460 or M-6049-B460

Part No M-6049-A429 or M-6049-B429

d. Ford Cleveland: Edelbrock Performer RPM P/N: 61629
Trickflow Specialties P/N: TFS-51616203-C00

Air Flow Research P/N:1492 or 1422

Ford Windsor: Air Flow Research P/N:1492 or Brodix IKF P/N: 1501000

Edelbrock Performer RPM P/N: 60259

f. Holden: Edelbrock Performer RPM P/N: 61379

 NOTE: Any cylinder heads not listed may be submitted to ANDRA for approval.

Speedmaster P/N: SM 3072

## For C/DA angle milling of cylinder heads permitted.

In C/DA, apart from genuine repairs which are limited to two cylinders only. Details of all genuine repairs must be submitted to technical@andra.com.au for approval prior to commencement of the repair. Details must include clear images of the type of damage and the intended repair method. Images of the final repaired cylinder head must also be provided to demonstrate that the repair has not significantly altered the configuration of the cylinder heads for purposes of increasing performance. Genuine repairs are defined as a repair for the intent of maintaining original design specifications, and must be localised to the specific area of the fault. Exhaust flange adaptors are permitted as long as no material from the manifold, the adaptor or any gaskets or seals protrudes into the port past its original outside face. Replacement of valve guides and seats is permitted.

D/DA any OEM or non-billet aftermarket inline valve cylinder head permitted (canted valve, splayed valve or billet cylinder heads not permitted).

**Fuel:** All classes restricted to Ethanol, Methanol or Petrol only. D/DA restricted to any ANDRA approved Unleaded Fuel Only (no E85 or Alcohol).

**Lower Engine Containment Device:** Required on all piston engine cars using a Supercharger, Turbocharger or Nitrous Oxide with an ET quicker than 8.999 seconds (1/4 mile) / 5.731 seconds (1/8 mile).

**Delay Devices:** Not permitted in Group 1 or Group 2.

Self Starting: Required. Push starts not permitted.

Ballast: Permitted. Refer Frame and Chassis, Ballast.

**Engine:** Automobile type engine required except for FF/D and FF/DA. Modifications permitted within Class Regulations. Any location, one engine maximum. Group 1 and Group 2 restricted to V8 engines only, excepting E/D, E/DA, EE/DA, EF/DA, F/D, F/DA, FF/D and FF/DA. Aluminium engine blocks permitted in AA/D, BB/D, BB/DA, CC/DA, EE/D, EE/DA, FF/D, FF/DA, A/D, A/DA, E/D, E/DA, F/D and F/DA only.

Aluminium Alloy (non-billet) engine blocks permitted in all Competition Dragster classes except C/DA.

D/DA permitted to use OEM Aluminium blocks but only in combination with original configuration and bolt pattern LS heads D/DA engine size restricted to 340.00 to 365.00 cubic inches. Maximum Bore Size 4.080. Camshaft restricted to 55mm diameter core, 0.800 maximum valve lift measured at the valve. Roller lifters permitted with a maximum 0.904 inch diameter.

Maximum RPM limit for D/DA is 9200 rpm. D/DA vehicles must have the ability to provide evidence of compliance with RPM limit, which may be checked by ANDRA Officials at any time at their discretion.

D/AA wet sump only, external oil pump permitted but limited to either single stage pump with separate vacuum pump or two stage wet/ vacuum pump.

Induction: Excepting C/DA, D/DA, AA/D, BB/D, BB/DA and CC/DA any carburettor, mechanical or electronic fuel injection system permitted. Competitors using EFI must use ANDRA approved/ nominated ECU software. AA/D, BB/D, BB/DA and CC/DA limited to carburettor or mechanical fuel injection. EFI compulsory in RR/DI and RRR/DI using ANDRA approved ECU software. Refer Electrical, Electronic Control Units. C/DA limited to mass produced cast inlet manifold, which must be cast in a single piece with only machining of faces, internal porting and welded repairs of minor damage permitted, and one four venturi, 750 cfm Holley carburettor, List No. 0-3310(s)/2 - /7 (Petrol), 0-4779(s) (Petrol), or 0-9645(s) (Methanol). An "S" suffix after the part number, denoting the finish of the unit will be accepted. Use of earlier carburettors with list numbers other than those noted may be approved by ANDRA. Fuel bowl extensions permitted. Standard choke body, base plate and venturi diameters must be retained, along with throttle shafts, blades and screws. No "Dominator" type or modified units permitted.

C/DA will also be permitted to use following approved 0-3310 direct replacement carburettors - Quick Fuel SSR-780-AU-M and SSR-780-AU-V.

D/DA restricted to a maximum of one carburettor with a maximum of four venturis or Single Throttle Body EFI to maximum of 4150 Holley bolt pattern spacing, mass produced cast aluminium manifold only, internal porting and welded repairs of minor damage permitted. Tunnel Ram plenum type manifolds not permitted.

Entire engine and induction regulations as per current Super Stock E/MSA and E/APA requirements.

**Superchargers:** For TA/D refer Top Alcohol Eliminator. AA/D, AA/DA, BB/D, BB/DA, EE/D and EE/DA will use the following Supercharger overdrive limits;

- Standard Rootes 14/71 .00322 x cubic inches, 50% maximum.
- High helix Rootes 16/71 .00285 x cubic inches, 33% maximum.
- High helix Rootes 14/71 .00300 x cubic inches, 40% maximum.
- Screw type with rotor diameter 215.9 mm (8.5 inch) or less manufactured after 31st December 1994 - .00369 x cubic inches, 72% maximum.
- Screw type with rotor diameter 215.9 mm (8.5 inch) or less manufactured prior to 31st December 1994 - 00408 x cubic inches, 90% maximum.
- Screw type with rotor diameter greater than 215.9 mm (8.5 inch) .00261 x cubic inches, 22 % maximum.
  - The rounding up of overdrive calculations will not be permitted.

**Turbochargers:** Vehicles with EFI Limited to maximum 40psi (2.7bar) boost.

**Frame:** Construction methods are at the option of the builder, providing minimum requirements are met.

Bellypan: Permitted. Streamlining may be added to any part of the car.

Firewall: Refer Body, Firewalls.

**Body:** Body and cowl must be constructed of metal, fibreglass or composite material or other suitable material and in front engine vehicles should extend to the firewall. The driver's compartment, consisting of frame structure, roll bars and body must be so designed as to prevent the driver's body or limbs from coming in contact with the wheels, tyres, exhaust system or strip surface should an accident occur. Brace under driver's posterior must be of compatible strength and dimensions as bottom frame rail. Sub flooring inside but independent of car body required in Dragsters in which driver's legs rest on Bellypan or chassis. Front overhang not to exceed 1016 mm (40 inches) measured from centreline of forward most wheel to forward most point of the vehicle.

**Deflector Plate:** A deflector plate must be installed between the rollcage and engine for all rear engine cars, to protect the driver and fuel tank. The deflector plate must be made of 3.0 mm (1/8 inch) Aluminium or 1.5 mm (.060 inch) Steel if it is welded in. It must extend from the top blower pulley and must be at least 25 mm (1 inch) wider than each pulley. Naturally Aspirated cars must have plate from shoulder level to the bottom of chassis.

**Wheelbase:** A minimum wheelbase of 3556 mm (140 inches) is required on all vehicles in this section. Wheelbase variation from left to right, maximum of 50 mm (2 inches).

**Rear Axle:** Spools permitted. Fully floating hubs required in all TA/D, AA/D, BB/D, BB/DA and CC/DA, EE/D, EE/DA.

**Transmission:** Each car in this section must have some means of disengaging the engine from the final drive, and an operative reverse gear is required. Aftermarket planetary transmissions using a clutch or torque converter, or aftermarket clutchless manual transmissions are only permitted in AA/D, B/D, E/D, EE/D, RR/DI and RRR/DI classes to a maximum of five forward speeds. All automatic classes limited to automotive based OEM planetary transmission (refer Definitions, "OEM Planetary Transmission") of up to three speeds using a torque convertor. Refer Drivetrain. FF/D and FF/DA reverse gear not required and 6 forward speeds allowed when using a motorcycle engine with an integral gearbox. D/DA automatic transmission only with no lock up convertor.

**Clutch:** For TA/D refer Top Alcohol Eliminator. Otherwise, Multi-Stage/Lock-Up clutches prohibited. Clutch must be manually operated by the driver's foot. Electronics, pneumatics, hydraulics or any other device may in no way affect the clutch system, and the throwout bearing must release all fingers, levers or stages simultaneously. Staged or variable release clutches of any description prohibited.

**Electronic Management:** Electronic gear shifting devices permitted.

Wheels/ Tyres: Light weight automotive type wire wheels or motorcycle wheels may be used on the front axle only, provided the total car weight does not exceed 816.46 kg (1800 lbs), including driver. Minimum front tyre diameter of 13 inch (330 mm). Suitably rated go kart wheels/ tyres permitted on vehicles weighing less than 362.87 kg (800 lbs).

**Brakes:** Minimum of two wheel hydraulic brakes, hand or foot operated.

**Steering:** On rear engine cars a collar or pin must be used to prevent the steering shaft from injuring the driver in case of frontal impact.

**Suspension:** Any type of automotive suspension is permitted. Suspension systems using a single shock absorber per axle are permitted. Rigid mounted front ends permitted, provided wheelbase exceeds 115 inch (2921 mm) or vehicle weighs less than 362.87 kg (800 lbs).

Arm Restraints: Required.

**Driver:** Driver may be in any location. Any car which has no crossmember above the driver's legs should have a strap or device to prevent the driver's legs from projecting outside the chassis.

Windscreen: Required.

**Night Lighting:** Required.

**Parachute:** Compulsory on all vehicles exceeding 130 mph (208 kph). Dual parachutes with separate shroud line attachments mandatory on all vehicles exceeding 200 mph (320 kph). Refer Frame and Chassis, Parachutes.

**Licence Requirements:** Endorsed GOL required for TA/D. All other vehicles Group 2 UDL as a minimum.

Technical Inspection and Vehicle Logbook: Required.