



## TOP ALCOHOL

# TOP ALCOHOL DRAGSTER

### Designation

Class Code: TAD (preceded by car number) Applies to:

- Supercharged, methanol-burning dragsters
- Injected nitromethane/methanol-burning dragsters

### Class Weights & Engine Limits

Injected Nitromethane (Non-Supercharged, Single Engine)

Displacement:

- Min: 410 cu. in.
- Max: 456 cu. in.
- Weight: 5.00 lbs./cu. in.
- Min Weight: 2,125 lbs.

Fuel

- Max 95% nitromethane at lower altitudes
- Only nitromethane and methanol permitted

Supercharged Methanol (Single Engine)

Roots-Type Supercharger

- Max Displacement: 528 cu. in.
- Min Weight: 1,975 lbs.

Screw-Type Supercharger

- Max Displacement: 466 cu. in.
- Min Weight: 2,050 lbs.

Oversized Engines: +5 lbs. for each cubic inch above limits

## TECHNICAL SPECIFICATIONS

Engine

- Aftermarket billet heads allowed; max 2 valves / 2 spark plugs per cylinder
- Bore Center Limits:

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- Hemi/Chevy: 4.900"
- Ford Boss: 4.900"
- Allowed Materials: Aluminum, steel, iron, titanium, magnesium
- Restrictions:
  - No composites (except injector scoops), beryllium, or carbon fiber
- Must retain OEM features unless IHRA-approved
- Must maintain:
  - Interchangeability
  - Original combustion chamber design
  - OEM bolt patterns
  - Cylinder orientation and block thickness
- SFI 7.1 lower engine restraint required

### Exhaust

- Competition exhaust required; must exit away from driver/fuel tank

### Fuel System

- No pressurized tanks
- Two-pump max
- Upon entering the staging lanes, fuel must be at least 50°F and stay that way through the run and post-run check. IHRA Tech may check fuel temp anytime from staging lanes entry to post-run inspection.
- Shielded lines and insulated tanks allowed

### Injector Scoop

- Max opening: 1 sq. ft.
- Height: ≤24" above roll cage
- Width: ≤24"
- Placement: 18" forward / 12" rearward of cylinders

### Oil System

- Crimped fittings required on pressure lines (>30 psi)

### Oil Retention Pan:

- Mandatory
- Material: .050" aluminum or .040" carbon/Kevlar
- Must span framerails and include absorbent liner

### Superchargers

- Roots: Max 14-71, SFI 14.2 & 23.1, max 1.50 overdrive
- Screw: PSI 206D only, SFI 34.1, max 2.28 overdrive
- No variable speed/turbo/supercharger automation allowed

### Throttle

- Foot-operated only
- No electronics/hydraulics
- Dual return springs required

### Valve Covers

- Must be metal and sealed
- SFI 14.4 required for nitro non-blown engines

### Breathers

- IHRA-approved vent/catch system required
- Min hose ID: 1.25", catch can: 6.75 gallons

**DRIVERTRAIN****Clutch/Flywheel**

- SFI Spec 1.3/1.4 clutch, SFI 6.2 flywheel shield required
- Max clutch discs:
  - Methanol: 3
  - Nitro: 4
- Must be foot-operated

**Driveline**

- Anti-blowback device required
- Full-floating/live axle required
- Gear Ratios:
  - BB + screw: max 4.58
  - BB + Roots: max 4.72
  - SB: max 4.90
- Nitro non-supercharged: min 2.90

**Transmission**

- Torque converters allowed for all combos
- Max 3-speed auto/planetary for blown combos
- No lockup converters, OD units, or auto-shift systems
- Electric-only trans brake allowed if IHRA-accepted
- Required safety items: SFI shields (6.1/6.2/6.3, 29.1, 4.1)
- All pressure manipulation devices must be external, and all action must end at the release of the trans brake. If electronic, must not be wired to the ECU.
- Pressure regulating devices must be at a fixed pressure from engine startup to shut down.
- Converter and line pressures must be recorded and visible in the data logs.
- No delay boxes
- No automated control of converter or transmission from acquired data.

**BRAKES & SUSPENSION****Brakes**

- Driver-controlled only
- Dual hydraulic disc brakes required
- Only carbon-carbon systems allowed
- Steel lines with fireproof shielding required
- Steering
- Quick-disconnect wheel or removable crossmember required
- Front-engine: must use SFI-certified wheel
- Shaft protection and no plating allowed

**Wheelie Bars**

- Mandatory - Max height: 4" from ground

**Ballast**

- Max 250 lbs. (welded/bolted)

**Helmet Shroud & Deflector Plate**

- .075" titanium or .090" 4130 steel
- 3 bolts/bosses per side + top

- Full enclosure, no sharp protrusions

**Ground Clearance**

- Front 3" (to 12" past axle), rear 2"

**Parachutes**

- Dual required
- Bright-colored spring chutes mandatory (2022+)
- 2 IHRA-approved tethers required

**Roll Cage**

- Must meet SFI:
  - 2.1 (rear engine)
  - 10.1 (front engine, driver ahead)
  - 2.2 (front engine, driver behind)
- Annual recertification required

**Roll Cage Padding**

- SFI 45.1 padding mandatory

- Side padding required

**Wheelbase/Tread Width**

- Min: 150"
- Max: 300"
- Max variance side-to-side: 2"
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**WHEELS & TIRES****Tires**

- Rear: up to 18" wide, 108–118" circumference
- Front: min 13" diameter

**Wheels**

- Rear: SFI 15.3, max 16" width
- Liners mandatory for non-bead lock
- No wheel covers/discs

**Interior**

- Seats must be padded/contoured
- Flame-retardant upholstery required
- Magnesium seats prohibited

**Body & Aero**

- Locking mounts for wings/canards required
- No rocker skirts or tunnels
- Subflooring required where feet contact chassis
- Front overhang limit: 30"
- Rear wing:
  - 550–1,500 in<sup>2</sup>
  - Max height: 90"

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- Max rear overhang: 50"
- Safety cables required for auto parachute deployment

### Electrical & Ignition

- Allowed: Ignition, data loggers, RPM-based fuel control
- EFI allowed on all combos; must be IHRA-approved
- Ignition: Programmable allowed
- Multi-point rev limiters not allowed
- Fuel curves and ignition timing may not be manipulated on-track by inputs from any sensor (O2 sensor, EGT, driveshaft sensors, etc).

### Safety Systems

Shutoff: Electrimation Kit SB001TAD/SB001AFD mandatory

### Driver Safety & Credentials

#### Harness:

- 6- or 7-point SFI 16.1
- Correct alignment and installation required

Arm Restraints: Mandatory

Head/Neck: SFI 38.1 required

Helmet: SA2015+ or FIA equivalent, eject system required

#### Suit & Gear:

- SFI 3.2A/15
- Gloves/boots/head sock: SFI 3.3/15

Must have current IHRA TAD 2A license