



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: 4.840"
- 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
- Rear End
- 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

- Nitro (non-supercharged): no transmission
- Supercharged: max 3-speed aftermarket planetary
- No automation, lockups, or overdrives
- Must have reverser, clutch hold-down recommended
- Dump valves or automated pressure regulation devices in the torque converter are prohibited, except for staging at the starting line.
- All such systems must deactivate immediately upon release of the transmission brake.

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

CHASSIS & SAFETY

Ballast

- Max 250 lbs (welded/bolted)

Helmet Shroud & Deflector Plate

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

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- 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-beadlock
- 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 in²
 - Max height: 90"
 - Max rear overhang: 50"
- Safety cables required for auto parachute deployment

Electrical & Ignition

- EFI allowed for blown alcohol (IHRA-approved ECU only) - No computer control of shifting/automation
- Top Alcohol: No microprocessor ignition components
- 2 magnetos max; only approved MSD/Mallory models allowed

Safety Systems

Shutoff: Electrimotion Kit SB001TAD/SB001AFD mandatory

Driver Safety & Credentials

Harness:

- 6-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