



# TOP ALCOHOL FUNNY CAR

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### IHRA Top Alcohol Funny Car (TAFC) Rules Summary Class Overview

- Designation: TAFC (Top Alcohol Funny Car); car number precedes class.
- Reserved for alcohol-burning and injected nitromethane/methanol-burning Funny Cars built solely for drag racing.
- All cars are weighed post-run with the driver included.

### Class Weights

#### *IHRA Specifications:*

- Roots Supercharged Methanol:
  - Min. weight: 2,200 lbs.
  - Max displacement: 565 ci
- Screw Supercharged Methanol:
  - Min. weight: 2,300 lbs.
  - Max displacement: 528 ci
- Non-Supercharged Nitromethane:
  - Weight: 5.35 lbs./ci
  - Displacement: 410–456 ci
  - Min. weight: 2,300 lbs.

### Fuel Regulations

- Altitude  $\geq$  3,500 ft: 100% nitromethane allowed
- Other Events:
  - Max 95% nitro (rear gear ratio 3.20 or higher)
  - Max 91.5% nitro (rear gear ratio 3.19 or lower)

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- Only methanol and nitromethane permitted

### Oil down Policy

- Fines and penalties apply per IHRA regulations if a competitor causes an oil down.

### Engine Regulations

- **Cylinder Heads:** Billet allowed; max 2 valves/2 plugs per cylinder. Must meet IHRA specs.
- **Engine Specs:**
  - Single camshaft, automotive-type I.C. engine
  - Bore spacing: Hemi/Chevy 4.900"; Ford Boss 4.900"
  - Dry-sump and OEM OHC allowed
  - SFI 7.1 ballistic lower-engine device required
  - Must retain OEM-like specs (crank, cam, bolt pattern, etc.)
  - No exotic materials; standard metals only
  - Redesigns require IHRA approval

### Fuel System

- No pressurized tanks; vented externally
- Fuel  $\geq 50^{\circ}\text{F}$  at all times
- Max two pumps; no nitrous or propylene oxide
- Driver-area fuel lines: steel or braided only

### Headers & Injector Scoop

- **Headers:** Double pipe insulated,  $32^{\circ}$  min. angle, 2.75" max O.D.
- **Scoop:** Max 1 sq. ft. opening, 24" wide; height = top of windshield

### Oil Systems

- High-pressure oil lines: crimped/tested (750 psi, 30 sec); no plastic lines
- Retention tray required (.050" aluminum or .040" carbon/Kevlar)

### Supercharger

- **Overdrive Limits:** PSI – 1.92; Roots – 1.50
- **Roots:** Max 14-71 size, billet allowed, internal airflow mods banned
- **Screw:** Only PSI 206D allowed; billet not permitted
- SFI 23.1 burst panels & 14.2/14.21 restraints mandatory

## Throttle & Valve Covers

- Mechanical throttle only; dual springs required
- Valve covers metal only; SFI 14.4 restraints (non-supercharged nitro)

## Breather & Crankcase

- Vent system with 1.25" min hose ID, 1–2 gal. catch-can
- No vacuum crankcase systems

## Clutch, Driveline, and Transmission

- Clutch: SFI 1.3/1.4 required; max 3 discs (methanol), 4 (nitromethane)
- Driveline: 360° covers front/rear; anti-blowback required

## 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 & Steering

- Four-wheel carbon-fiber disc brakes; dual master cylinder
- Quick-disconnect steering (SFI 42.1); no plated parts

## Suspension & Wheelie Bars

- Front suspension optional; wheelie bars required (max 4" off track)

## Chassis & Frame

- Ballast: Max 250 lbs.; see IHRA Gen. Reg. 4:2
- Helmet Shroud: .075" titanium / .090" steel / IHRA-accepted composite
- Ground Clearance:
  - 3" front to 12" behind axle
  - 2" elsewhere
- Parachutes: Dual, with bright-colored spring chutes
- Roll Cage: Must meet SFI 10.1; external wiring; recert yearly
- Wheelbase: 100"–125"; max 2" side-to-side variation
- Tow Hooks: Required at lower front chassis

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### Wheels & Tires

- Tires: Max width 18", circumference 108"–118"
- Wheels: Rear SFI 15.3; bead locks or liners mandatory; no wire/disc covers. 16" wide maximum

### Interior

- Materials: Aluminum or steel only (except carbon scoop)
- Seat: Foam padded, flame-retardant covered

### Body Specifications

- Must be IHRA-approved mold (1955+ sports/coupe/sedan, ≥63" wide)
- Max overhang: 40"; rocker panel 18" past rear axle
- Window, grille, bumper, spill plates, and wickers must meet strict specs
- Transparent escape hatch not allowed; size: 18"x17", front-hinged
- Wheel wells must meet min opening specs
- Body must be removable with marked T-handle release

### 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, EGTs, driveshaft sensors, etc)

### Fire Safety & Shutoff

- Fire System: 20 lb. SFI 17.1 system; 15 lbs. engine, 5 lbs. driver
- Shutoff: Electrimotion TAFC system (SB001TAFC + RF001) required

### Driver Requirements

- Must have current IHRA level 2B license for TAFC.
- Arm Restraints & Restraints: SFI 16.1 6-point, flame-resistant-covered
- Helmet: Full-face SA2015+ or FIA equivalent; Eject system or Lid Lifter
- Protective Gear: SFI 3.2A/20 suit, 3.3/20 gloves/boots, fire-retardant underlayers
- Fresh Air System: Mandatory; constant pressure only
- HANS Device: SFI 38.1 required anytime in vehicle