

Wedge Injected Nitro series.

2012 Rules – Dave Koehler – Koehler Injection – www.koehlerinjection.com

Front Engine Dragsters

Open to **un-blown**, mechanically injected, **NITRO** "small block" **WEDGE** engines.

Limited to the Small Block Chevy, Chrysler, and Ford.

Heads up - 4 Tenths Pro Tree – No breakout

Emphasis is on the Driver and the Tuner

Updated 08/04/11

Summary

- 1: Unless otherwise noted here, Vehicle, Driver and Crew must comply with NHRA Rulebook, Section 4B-ADVANCED E.T. and general regulations at all times.
- 2: Center Steer Front Engine Dragsters. See chassis details.
- 3: SB Chevy, SB Ford, SB Chrysler Wedge engines only.
- 4: 375 cubic inch maximum.
- 5: Spec cylinder heads. See Engine details.
- 6: Mechanical fuel injection with spec pump. See injection details.
- 7: Nitromethane fuel. Methanol only may be used to reduce percentage.
- 8: Magneto only, 12 amp maximum. See Ignition details.
- 9: Powerglide transmission only. See Transmission details.

Details

ENGINE

- 1: Heads required: Chevy: Brodix Part # 11 SPX ASCs
Chrysler: Brodix Part # 27-223/T1 F
Ford: Brodix Part # 27-222/B1 BA
Head information; 2011 Brodix catalog. Pages 79-80
 - 1A: No other heads are allowed.
 - 2A: Absolutely no intake or exhaust port relocation of any type.
Valve position, angle and placement may not be altered in any way.
 - 3A: May **NOT** touch the cast in logo ID if any port work is done.
 - 4A: Intake port size may be no larger than the ID of the following gaskets
 - 11 SPX ASCS – Fel Pro 1206 (Chevy)
 - 27-223 – Fel Pro 1213 (Mopar)
 - 27-222 – Fel Pro 1262 (Ford)
 - 5A: Exhaust port size may be no larger than the ID of the following gaskets
 - 11 SPX ASCS – Brodix MG1500 or Cometic C5424 (Chevy)
 - 27-223 – Fel Pro 1413 (Mopar)
 - 27-222 – Brodix 1351 (Ford)
 - 6A: Heads may be solid or water jacketed.
- Download Brodix spec head pdf > http://www.koehlerinjection.com/pdf/brodix_spec_heads.pdf
- 2: Cubic inch: 375 maximum
 - 3: Block: Cast Iron
 - 4: Starters and batteries: May be on board, plug in or removable.
 - 4A: If there is a battery on board to start the car a Master shutoff is required.
 - 5: Zoomies only. NO collector style exhaust.
 - 6: Cast or fabricated metal valve covers using all attachment bolt holes mandatory.
 - 7: Water: If water is run a suitably sized metal puke tank must be employed to catch all overflow.
 - 8: Harmonic balancer must meet SFI spec 18.1
 - 9: No dry sump oil systems.
 - 10: No vacuum pump evacuation systems.

- 11: Lower engine oil-retention device or bag mandatory.
May use a belly pan in lieu of a device attached to the engine.
The belly pan must extend from frame rail to frame rail and extend forward of the harmonic balancer and rearward to rear engine plate and must incorporate a minimum 2-inch-high lip on all sides. A nonflammable, oil-absorbent liner mandatory inside of retention device.
11A: Belly pan may not be made of carbon fiber.

It is believed that the 2 inch side recommendation may be too short for a FED engine exposed to more wind than an RED engine would see. IF a window occurs the 2" sides are likely useless. Give it some thought.
(Gentlemen and Ladies: Oiling the track is a sin. Do your very best to design for and avoid it. The car you save may be your own.)

INJECTION – THROTTLE – Pump - FUEL

- 1: Mechanical Injection limited to individual butterfly Stacks or Tunnel Ram with hat.
1A: Tunnel Ram Hat: Limited to Enderle Bug & Bird or Hilborn Shotgun.
1B: NO scoops on top of stack injection.
- 2: Single fuel pump: Enderle 600 mandated.
2A: Inspection of pump for size will be done at the track by WIN tech if necessary.
2B: NO pump over drive in any form. Limited to 50% (under drive) of crankshaft rpm.
- 3: Maximum of 8 nozzles.
3A: NO nozzles under the valve cover or on the outside of head.
- 4: Throttle must be controlled by the Driver. Nothing automated in any form.
4A: NO 2 steps or air launch control..
4B: A device to limit burnout rpm may be attached to the linkage but may not be controlled by the driver.
- 5: Fuel management must be solely controlled by the driver. Nothing automated in any form.
5A: Spring loaded or diaphragm style bypasses only..
5B: NO automated electric, hydraulic, or air operated on/off circuits.
- 6: Primer system is allowed for alcohol warm ups.
It must be obvious to all that it is not being used as a 2 stage nozzle system.
- 7: NO Fuel lines permitted in driver's compartment.
- 8: Fuel shutoff operable from the driver's seat is mandatory.
- 9: Fuel tank must be mounted above lower frame rail and must be equipped with a positive locking screw-on cap.
- 10: Manifold must be made of metal. May be cast or sheet metal fabricated.
- 11: No carbon fiber stacks, hats, throttle bodies, etc.

IGNITION

- 1: 1 Magneto only, 1 coil/points box only, Any Brand, Up to 12 amps maximum.
If MSD brand is chosen it must be the ProMag 12LT Series, part #s 7908, 7910, 7915.
MSD # 8150, 8160, 8139 are not allowed
- 2: Timing changes must be controlled by the Driver. Nothing automated in any form.
- 3: NO crank triggers, other electronic, automated air or hydraulic ignition controls of any kind.
- 4: 1 spark plug per cylinder.
- 5: NO 2 steps, rpm or time controlling devices of any kind.
- 6: Must have dedicated mag OFF switch controlled by the driver.
- 7: Hi rpm rev limiter allowed

TRANSMISSION

Automatics

- 1: 2 speed Powerglide and converter. Must be aftermarket case. NO OEM cases.
1A: Bellhousing and transmission sections must have current SFI tags.
- 2: Trans Brake allowed. Maximum one transmission brake solenoid permitted.
- 3: Reverse lockout shifter required.
- 4: Neutral safety switch required.
- 5: Automatic transmission flexplate meeting SFI Spec 29.1 mandatory.
- 6: Shifting must be controlled by the Driver. Nothing automated in any form.
- 7: Transmission must have a metal puke tank connected to the breather vent.
- 8: NO Mechanical or electrical lock up torque converters.
- 9: NO carbon fiber transmission pans.

Wheels

- 1: Wheels must be either beadlock design or an inner liner used on non-beadlock wheels.
- 2: NO magnesium or carbon fiber wheels.
- 3: NO aluminum or titanium wheels studs and nuts.

DRIVELINE & REAR END

- 1: A full cover of .063-inch aluminum minimum must enclose the drive line.
- 2: Couplers mandatory.
- 3: Pinion support mandatory.
- 4: Aftermarket full-floating or live axle assembly mandatory on any vehicle that runs 6.50 and quicker, or 210 mph and faster.
- 5: NO independent rear suspension.
- 6: NO titanium, aluminum, magnesium or carbon fiber rear end housings.
- 7: NO aluminum or magnesium 3rd members, hogs head, etc
- 8: NO titanium or aluminum couplers and/or driveshafts.

CHASSIS – Body - Steering

- 1: Wheel base: Minimum 150". Maximum 225".
- 2: Maximum front overhang is 30" measured from the front spindle centerline.
- 3: Front engine dragsters (driver behind rear end) must meet SFI Spec 2.2B or 2.4B.
- 4: Long Funsters/Alster/Altereds (driver in front of rear end) must meet SFI Spec 10.1E
- 5: NHRA and IHRA Advanced ET stickers required. (both sanctions are involved)
- 6: Roll-cage padding meeting SFI Spec 45.1 mandatory anywhere driver's helmet may come in contact with roll-cage components. See NHRA General Regulations 4:11
- 7: All wiring must be external of the frame rails.
- 8: NO Routing of cables, hydraulic, or pneumatic lines inside the chassis tubes.
- 9: NO pressurization of frame rails in lieu of air bottles.
- 10: Wheelie Bar(s) permitted. Wheels must be non metallic.
- 11: NO enclosed cockpits.
- 12: Commercially available quick-disconnect steering wheel meeting SFI Spec 42.1 mandatory.
- 13: NO pinned steering crossmember in lieu of an SFI quick-disconnect steering wheel.
- 14: Ground Clearance: Minimum 3 inches from front of car to 12 inches behind centerline of front axle, 2 inches for remainder of car, except oil pan.
- 15: NO titanium, aluminum or carbon fiber spindles, drag links, tie rods, radius rods, tubing, etc.
- 16: Body must be made of metal. NO carbon fiber or fiberglass.
- 17: Wheels and tires must be fully exposed.
- 18: Canard wings limited to 400 sq inches total. Must be made of metal. NO Carbon Fiber
Canards may not extend more that 1 inch outside of tires.
- 19: Front wing(s) limited to 400 sq inches total. Must be made of metal. NO carbon fiber.
Front wing must be below front tire and may not extend outside of the tires.
- 20: Rear Wing: On long altereds only where driver is in front of rear end.
750 Square inch maximum. Must be made of metal. NO carbon fiber.
- 21: Maximum wicker on all wings is 1/2 inch. Must be metal.
- 22: Adjustment of wings during run prohibited.

BRAKES & Parachute

- 1: Minimum two rear-wheel hydraulic disc brakes.
- 2: NO automated brakes. Application and release of brakes must be a function of the driver.
- 3: Hand brake, if used, must be located inside body or driver compartment.
- 4: Steel brake lines mandatory.
- 5: Brake lines passing engine must be shielded.
- 6: Dual Chutes mandatory.
Two separate shroud line mounting points are mandatory. See NHRA General Regulations 4:8
- 7: NO carbon fiber brake discs.

LICENSE, FIRESUIT, HELMET, BELTS, Fire Extinguisher, ETC.

- 1: Valid NHRA and IHRA advanced ET competition license mandatory.
(both sanctions are involved)
- 2: Driver's suit meeting SFI Spec 3.2A/20 with current certification tag.
- 3: Gloves: 3.3/20
- 4: Arm restraints. See NHRA General regulations 10:4.
- 5: Boots: 3.3/20
- 6: Full-face helmet with shield meeting Snell SA2005, SA2010, SFI 31.2A, or 31.1/2005 Specs mandatory.
6B: It is strongly recommended that helmets should have the Eject™ helmet eject removal system installed as per the manufacturers instructions.
- 7: NO open face helmets and fire masks.
- 8: Head sock: 3.3. Head sock is not mandatory when helmet is manufactured with a skirt labeled as meeting SFI Spec. 3.3.
- 9: Head / neck restraint SFI spec 38.1 mandatory. Must display a valid SFI label.
- 10: Three-inch driver restraint belt system meeting SFI Spec 16.1 mandatory.
- 11: All belts must be covered with a fire-resistant covering.
- 12: Restraint belt system must be updated at two-year intervals from date of manufacture.
See NHRA General Regulations 10:5.
- 13: 20 lb fire extinguisher system meeting SFI spec 17.1 mandatory.

VENT-TUBE BREATHERS – PUKE TANK

- 1: Catch can - vent tube – Puke tank mandatory.
- 2: Twist-on/quick-disconnect fittings between the vent-tube hoses and the valve-cover vent-tube adapters must incorporate a secondary locking device such as a hasp pin, ball lock pin, etc.
NO, duct tape won't fly.
- 3: Double clamps are required on each end of all hoses used in the vent system, including dry-sump vents.
- 4: Minimum 1-inch-inside diameter hoses are required from each valve cover to the catch-can inlets and/or frame rails and from each frame rail outlet to both catch-can inlets.
- 5: Minimum catch-can(s) capacity is an 8-quart sump. Catch cans must have adequate internal baffling.
- 6: Vent tubes must be unobstructed from the interior of the valve cover to the interior of the catch can. NO orifices, reduced areas, filler materials, etc.
- 7: NO magnesium or carbon fiber puke tanks.

DATA LOGGERS & ELECTRONICS

- 1: Data recorders allowed. Must serve no other function than recording.
- 2: NO delay boxes, timers (air included) or other electronics.
- 3: Electronic Rev limiters are allowed but not for burnouts or staging. See injection details.

TOW VEHICLES

- 1: Each tow vehicle must have working fire extinguisher on board. Maybe 2?
(Do not depend on track personnel for you or your fellow racer's safety)

WARM-UPS

See NHRA General Regulations 9:14

TECH INSPECTION

- 1: You will be subject to a cubic inch pump test at any random time so don't push it.
- 2: Other than the obvious rules above, if you are running away from the crowd and enough of your peers believe you are up to something you will be required to prove otherwise.
- 3: Note that a single whiner does not merit any consideration.

Make sure you and your car meet the specs. We don't want to turn you away.

OTHER

- 1: Long burnouts and dry hops are encouraged so plan your fuel capacity accordingly.
- 2: Track prep: Expect the minimum to nothing.
- 3: We want a smooth, quickly moving race/show so no screwing around starting the car.
Practice your starting procedure at home with the whole crew.
- 4: Appearance: Try to be as professional as you can appear.
At least have the whole crew wearing identical shirts on the starting line.
- 5: No Whining. Shut up, work harder, smarter and race.

Proposed race day:

1 day affair, 2 time runs, Eliminations in the evening, on a Saturday.
First round loser goes home with something.