

# LDR

LIMITED DRAG RADIAL



**Jim Howe, Jr.**  
Mickey Thompson Tires  
2019 World Champion

**Matt Bell**  
ET Record Holder  
4.047



# LIMITED DRAG RADIAL

## DESIGNATION:

The class designation is LDR. All entrants must display this designation on both sides of their car with car number.

## CHAMPIONSHIP POINTS SERIES:

LDR will feature a championship points series in 2020 with a schedule of events that will be located on the Facebook group for review and selection. At the end of the season, we will select your best **6** events to tally your points from. Entry into the points series is **FREE** for any person who buys a tech card into any LDR event. If an event is cancelled due to rain or other reasonings to where the event does not begin eliminations, the race does not count towards any totals due to never completing a round of eliminations. Points will be accumulated from the time you pass the technical inspections process, to qualifying, to the final round of eliminations. Entries will receive 20 points for passing tech, the top five qualifiers will receive bonus points, 10 points per round win (including final round win), 2 points for an event win and 1 point for an event runner-up. If you attend all points events, you will receive a 10-point bonus, equivalent to one round of eliminations. **In the event of a tie in the championship points standings, the tie-breakers will be as followed: 1) most event wins, 2) most event runner-ups, 3) most number of events entered and 4) most event round wins.**

## FORMAT:

This is a 1/8th mile, heads up category running on a .400 Pro tree with a 32-car qualified field, professional pairing ladder. This is a single power adder class only!

## SAFETY:

All NHRA/IHRA and Local Track Safety rules apply for car and driver, including the use of **an oil retention device and/or engine diaper is MANDATORY**. Any competitor causing an oil down that does not have an oil retention device will lose 20 points off their 2020 LDR championship points tally.

## BODY:

The car must retain its original appearance, profiles and dimensions. No aftermarket one-piece bodies. OEM door jamb and quarter panels must be used. No modified front ends to achieve maximum NHRA/IHRA overhang, must stay within original body dimensions. Must retain factory body lines with removable composite components as in hood, front bumper, front fenders, doors and deck lid. Any beam tripping devices forward of the bumper are prohibited. Aftermarket front bumpers ("Ex. Snowplows or Valances") cannot have more than 2 inches of overhang over the stock bumper dimensions, failure to abide by this rule will result in disqualification. Aftermarket wings and spoilers are permitted. A hood must be used; scoop or hood must cover entire induction system. Exceptions are throttle bodies or carburetors on naturally aspirated and nitrous oxide assisted engines along with intake manifolds/throttle bodies on boosted engines. Those may protrude through the hood for clearance, if needed. Forward facing hood scoops/turbocharger/supercharger inlets are permitted. OEM/Lexan windows are permitted. Front ends must be within the spirit of the rules and legality is at the discretion of the race director. Firewall must be in the **stock location**; stock firewall can be modified.

## CHASSIS:

Door cars only, no pro mod or full tube chassis. Backhalf style cars are permitted. No Wheelie Bars. Any rear suspension is permitted. Factory front frame rails are mandatory, they can be modified and must extend to the center of the front spindle. Aftermarket front K-Members are permitted, must bolt in the factory location. Factory equipped 'bolt-in' subframe cars are permitted an aftermarket bolt-on front end (Ex., Smith Racecraft) for '62-'74 Nova and '67-'81 Camaro/Firebird, must bolt in. Factory wheelbase for year/make/model must be maintained, (+/- 1 inch). A minimum height of 3 inches from the front of the vehicle to 12 inches behind front spindle center line is mandatory. A minimum height of 2 inches for the rest of the vehicle is mandatory (except for oil pan and headers).

## BALLAST:

Any material used for the purpose of adding to a car's total weight must be permanently attached to the car's structure and must not extend in front of or behind the rear of the car's body. No liquid or loose ballast permitted (water, sandbags, rock, shot bags, metal weights, etc.). Removable weight must be securely mounted to the frame or frame structure by a minimum of two 1/2-inch diameter steel bolts per 100 pounds, or one 3/8-inch steel bolt per 5 pounds. All other weight bars, pucks, etc., must use a minimum two 1/2-inch diameter SAE Grade 8 bolts for attachment per 100 pounds.

## ENGINE/POWER ADDERS:

The cubic inch limit for any Big Block combination is 910 cubic inches. All **SMALL BLOCK** engines are limited to 4.600 bore spacing and 570 cubic inches on naturally aspirated or nitrous assisted combinations. All boosted small block entries are limited to 4.600 bore spacing, 10.200-inch deck height and 505 cubic inches. All engines must have a diaper, belly pan or oil retention device. **Nitrous oxide** is permitted to run any type multi-stage nitrous system with no restrictions. Nitrous entries must have bottle securely contained in a bottle bracket. Maximum bore spacing for all boosted combinations is 5.000 or less. **Turbocharger** combinations are limited to a maximum 118mm single turbo or a set of 88mm twin turbochargers. Hemispherical headed big blocks are **prohibited** to use twin turbochargers as

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their selected power adder. *Refer to weight addition/reduction section below for twin turbocharger clarification.* The maximum specifications for a single turbocharged combination are **COMPRESSOR WHEEL** (inducer-118mm tip to tip, exducer-141mm maximum) and **TURBINE/EXHAUST WHEEL** (inducer-130mm maximum, exducer-114mm maximum). The maximum specifications for a twin turbocharged combination are **COMPRESSOR WHEEL** (inducer-88.9mm maximum, exducer dimensions-134mm maximum, measured at the backing plate), (non-extended exducer tip-to-tip measurements may not exceed 135mm), (extended exducer tip-to-tip measurements may not exceed 142.5mm) and **TURBINE/EXHAUST WHEEL** (inducer-113mm maximum, exducer-103.5mm maximum). The maximum diameter of the housing bore at the leading edge of the wheel may not exceed 2mm more than the maximum allowable turbocharger size permitted. Compressor map groove will not exceed .250 of an inch. Turbochargers will be verified by measuring the housing bore at the leading edge of the impeller wheel and must retain the contour of the compressor housing, stepped or clipped compressor wheels are prohibited. Inserts or reducers to achieve inlet or outlet dimensions are prohibited. Any inconsistent modifications to compressor or turbine wheel, blades, hubs, cover or housing is PROHIBITED. [Boreless shaft turbochargers are prohibited.](#) [Boreless compressor wheels are prohibited.](#) [Machined turbine hubs are prohibited.](#) [Compressor wheel tip-to-tip must be able to be captured by the checking tool, a minimum of 0.200-inches.](#) **Supercharger** combinations are limited to a single centrifugal supercharger at a F3-139 maximum, small block and big block. Maximum size on all twin centrifugal supercharged combinations is base F1X, (F1X-12 is prohibited). Any modification to factory impeller or housing size is strictly prohibited. Roots superchargers are restricted to a 14-71 maximum. Screw superchargers are permitted on a small block combination only. [Screw superchargers are prohibited on all other engine platforms.](#) Dual power adders are strictly prohibited across all combinations. All forms of power adders (nitrous, turbochargers and superchargers) must be commercially available to the general public for purchase and use.

## **ELECTRICAL:**

All entries must be self-starting from inside the vehicle. A master cut-off switch is mandatory on the rear of the car with an on/off sticker. Any electronic ignition system is allowed, see below for weight additions/reductions. Computer/Data Recorders are permitted.

## **EXHAUST:**

Mufflers or inserts are required on all cars except for turbo cars. Exhaust may exit underneath car or out the front fenders/valance but must not affect timing or staging beams.

## **CO2 SYSTEM AND LINE:**

The first TWO feet (minimum) of the line coming from the CO2 bottle must be 1/4" plastic line with push-locks. No braided steel lines direct from the CO2 bottle to ensure no nitrous oxide is being used. Braided steel line may be used after the first two feet of plastic/push-lock line to protect the line running through the firewall and/or around exhaust system.

## **INTERCOOLER:**

Any intercooler is permitted on gasoline combinations only. Must be securely mounted to chassis or mounts with preferred hardware. Water box must be contained in a safe environment with a top to enclose water/ice during the run. Intercooler combined with a methanol fueled combination is prohibited.

## **TRANSMISSION/DRIVELINE:**

Any transmission permitted. Any converter permitted. Lock-Up Transmission/Converter setups are permitted on naturally aspirated and nitrous oxide combinations only, prohibited on turbocharger or supercharger combinations.

## **FUEL:**

Any gasoline, E85 or M1 permitted. M5 is prohibited. No nitromethane or additives.

## **WHEELS/TIRES:**

Any brand DOT 275/60-15 Drag Radial. Mickey Thompson 295/65-15 Drag Radial (PN: 3558) and Hoosier 295/65-15 DR2 (PN: 17316DR2) will be the legal tire options for the 'big' tire option. Nitrous oxide combinations can run any tire at base weight, no weight penalty on nitrous cars for the big tire. Must stay on the same tire throughout the entire event.

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## WEIGHTS:

*All weights are minimum with driver in car, equipped with 295/65-15 Tire.*

## NATURALLY ASPIRATED:

- Small Block - No Minimum
- Big Block - No Minimum

## NITROUS OXIDE:

- Small Block - 2,200 lbs.
- Big Block (4.840 Bore, Any Transmission) - 2,550 lbs.
- Big Block (5.000 Bore, Any Transmission) - 2,650 lbs.
- Big Block (5.000+ Bore, Up to 910 CI Maximum, No Lockup Transmission) - **2,800 lbs. (-50)**
- Big Block (5.000+ Bore, Up to 910 CI Maximum with Lockup Transmission) – **2,900 lbs. (-25)**

## TURBOCHARGER:

- Small Block, Single Turbo - 2,900 lbs.
- Small Block, Twin Turbo - 3,050 lbs.
- Big Block, Single Turbo - 3,175 lbs.
- **HEMI/HEMI Headed Big Block, Single Turbo – 3,275 lbs.**
- Big Block, Twin Turbo – 3,325 lbs.

## SUPERCHARGER:

- Small Block, Roots - 2,750 lbs.
- Big Block, Roots – 3,000 lbs.
- **HEMI, Roots – 3,100 lbs.**
- **Small Block, Screw – 3,100 lbs.**
- Small Block, Single Centrifugal (ProCharger F1 or Equivalent) - 2,825 lbs.
- Small Block, Single Centrifugal (ProCharger F2 or Equivalent) - 2,850 lbs.
- Small Block, Single Centrifugal (ProCharger F3 or Equivalent) - 2,875 lbs.
- Small Block, Twin Centrifugal – 3,050 lbs.
- Big Block, Single Centrifugal (ProCharger F1 or Equivalent) - 3,075 lbs.
- Big Block, Single Centrifugal (ProCharger F2 or Equivalent) - 3,125 lbs.
- Big Block, Single Centrifugal (ProCharger F3 or Equivalent) - 3,175 lbs.
- **HEMI/HEMI Headed Big Block, Single Centrifugal (ProCharger F1 or Equivalent) – 3,175 lbs.**
- **HEMI/HEMI Headed Big Block, Single Centrifugal (ProCharger F2 or Equivalent) – 3,225 lbs.**
- **HEMI/HEMI Headed Big Block, Single Centrifugal (ProCharger F3 or Equivalent) – 3,275 lbs.**
- Big Block, Twin Centrifugal – 3,300 lbs.
- **HEMI/HEMI Headed Big Block, Twin Centrifugal – 3,400 lbs.**

## WEIGHT ADDITIONS/REDUCTIONS:

- **100 lb. Weight Reduction for the 275/60/15 DOT Drag Radial, except Big Block Twin Turbo and nitrous combinations.**
- **100 lb. Weight Addition for any Small Block with bore spacing over 4.510 and capped at 4.600.**
- 25 lb. Weight Reduction for Non-Extended Tip Compressor Wheel turbochargers on Twin Turbocharged Combination Only  
*(Competitors may be asked to remove compressor cover for verification at any time by technical inspection team)*
- **50 lb. Weight Reduction for Conventional Headed BBC Combinations on Gasoline. (-25)**
- **25 lb. Weight Reduction for Conventional Headed BBC Combinations on Methanol/E85. (-25)**
- **25 lb. Weight Reduction for Boosted Combination with Cast Cylinder Heads (-25)**
- 50 lb. Weight Reduction for Centrifugal Supercharger Combination on Gasoline.
- 50 lb. Weight Reduction for Leaf Spring Rear Suspension.

*\*\*\* Rules are subject to review at any time. We are going to do our best to keep the racing as tight and competitive for all combinations throughout the entire 2020 season. \*\*\**

*Rules can be found on Limited Drag Radial Facebook group.*