



## **The New 2019 PBOC Open Racing Car Classification System**

Commencing with Winterfest 2019, PBOC will be rebranding its club racing program as ***PBOC Open Racing***. PBOC intends to make PBOC Open Racing even more attractive to drivers of all types of racecars. To achieve this, PBOC is adopting a highly simplified racecar classification system that discards the traditional multi-component point system for a straight forward system that focuses on engine size and car weight. PBOC's existing car and driver safety requirements continue to apply. Fundamentally, the premise is that amateur racecar preparation has evolved to a fairly uniform level; accordingly, the single biggest determinants of racecar lap times (apart from the driver's skill) are engine power and car weight.

PBOC calls this new classification system the Weight/Displacement Index, or WDI. Unlike some organizations that use dyno results for classification, PBOC has reduced the burden on racers and race officials, and the WDI system will not require dyno results. This additionally eliminates issues related to the variation of dyno results due to things such as machine calibration and test conditions, as well as the opportunity to "adjust" the dyno results.

All that will be necessary to classify a racecar for PBOC Open Racing will be its weight (in pounds) and engine displacement (in liters). Recognizing, however, that not all engines of the same displacement generate the same power, the PBOC Race Director will have discretion (to be exercised carefully and rarely) to make classification adjustments to achieve fun, competitive, fair and safe racing.

PBOC believes that this new system will enhance competition, reduce complexity and increase race participation. As with any new system, implementation will be closely monitored and warranted adjustments will be made based on experience and participant input. Our only goal is to provide safe, fun and competitive motorsports for all of our drivers.

The new WDI system works on the following simple rules:

1. Race car classifications will be based on the Weight/Displacement Index (**WDI**).
  - (a) "**Weight**" means the measured weight (in pounds) of the car (no driver); and
  - (b) "**Displacement**" means the actual engine displacement in liters (i.e., if the engine displacement is modified from stock, the modified displacement is used).
2. WDI will consist of 8 classes, ranging from 5 to 12.

3. WDI will be computed as follows:

- (i) (A) equals the quotient of Weight divided by Displacement.
- (ii) Divide (A) by 100 and truncate resulting quotient to two numbers to the right of the decimal point. The result is (B).
- (iii) Round (B) to nearest whole number, up if decimal is .50 or greater or down if decimal is lower than .50. The result is WDI.
- (iv) Subject to Rule 4 below, Class equals WDI.

For example, a 2900 pound racecar with a 3.6 liter engine would have its class calculated as follows:

- (i)  $(A) = 2900/3.6 = 805.55$
- (ii)  $(B) = 805.55/100 = 8.0555$ , truncated to 8.05.
- (iii) Round 8.05 down to 8, which equals WDI and Class.

4. The following rules apply to calculation of WDI and classification:

- (i) If measured weight per scales is not available, then factory curb weight for the specific vehicle and year minus 200 pounds will be used.
- (ii) Displacement of supercharged and turbocharged engines will be multiplied by a factor of 1.50. For example, a turbocharged 2.5 liter engine would be classed based on a 3.75 liter displacement.
- (iii) The WDI of factory built racecars, such as Porsche Cup Cars or BMW GT4, will be reduced by 1 (e.g., if the calculated WDI is 6, then the reduced WDI would be 5).
- (iv) The PBOC Race Director shall have the authority to adjust a car's WDI to achieve competitive balance and fairness. Such adjustments shall be considered if a car's actual race results demonstrate in two or more races an average time of the three fastest laps of each race that is 7% faster than the average time of the three fastest laps in the same races of the next fastest car in the same class.
- (v) Thunder Roadsters will be dual classed based on WDI and also as a single Thunder Roadster class.
- (vi) Prototypes such as Elan, Praga, Ligier and Radical will be dual classed based on WDI and also as a single PBOC Prototype Class.
- (vii) Mazda MX-5 (Miata) racecars that satisfy the Spec Miata specifications of SCCA or NASA will be dual classed based on WDI and as single PBOC Miata Class.

5. PBOC car and driver safety standards will remain unchanged until expressly revised in writing.