

Power Cap Rule

Posted by Sterling Doc - 11 Nov 2012 14:13

Here it is:

NASA 944 Spec Power Cap

For purposes of these rules "Power" will be defined as $(HP+TQ)/2$

The maximum allowed engine power output is 138.0, plus 2.0 to account for dyno variations. Any car exceeding this total power output of 140.0, as determined by the dyno procedure listed below, will be repositioned to last place from the session, or race immediately preceding the dyno testing. A competitor must detune the engine and prove compliance on the dyno to participate in the next session or race, at the racer's expense. A second violation of this rule within a season, will result in disqualification from the immediately previous session, or race.

Competitors are highly encouraged to test their car's power output prior to competition using the dyno procedure below to ensure compliance with the power cap. Lack of testing does not excuse exceeding the power cap.

Dyno Testing Procedure

1. No adjustments affecting the cars power output may be made during the race, or at any time between the race and dyno testing is completed.
2. Cars will be operated by a dyno operator or NASA official. NASA is not responsible for any failures during this operation.
3. Only Dynojet brand Dynos shall be used.
4. All dyno readings must be corrected to SAE J1349 Rev JUN90 (29.23 in/hg, 77F, zero humidity) and the dyno's smoothing function must be set to 5.

5. Drive wheels shall have tire pressures set to 30PSI prior to dyno testing.
6. Electric engine fans may be used, as well as external fans.
7. Hoods shall be open during the dyno runs.
8. Engines should be warmed up, and show an minimum oil temperature of 160 degrees F before compliance runs are initiated. This may be verified by external means. "Practice pulls" are highly recommended to ensure proper drivetrain temperatures and stable power outputs.
9. The average power output of 3 consecutive dyno runs will be used to determine a car's maximum power output. Starting RPM shall be no higher than 3000. Ending RPM shall be at least 6,400 RPM, or when the cars' RPM limiter is engaged. The rev limiter must be engaged during at least one run, unless RPM exceeds 6750 RPM without engaging the RPM limiter.
10. Any motor reaching 6750 RPM or more without engaging the RPM limit will be disqualified, regardless of engine power output.

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