# NASA Super Touring (ST), Performance Touring (PT), and Time Trial (TT) Official Dyno Certification Form (rev 12-16)

**Car Information:**

Owner/Competitor: _____ Class: _____ Car # _____ Log Book # _____

Vehicle Make:_____ Model:_____ Year:_____

Forced Induction? Y N (circle one) Restrictor Plate? If yes, what is the size:_____

Method of switching ECU Fuel/Timing Maps (if applicable):_____

**Dynamometer Information** (name/address/phone ink stamp okay here)**:**

Shop Name:_____

Shop Address:_____ Shop Telephone #_____

Dynamometer Manufacturer/Type (**circle one**):

FWD/ RWD: Dynojet (only) AWD: Dynojet Mustang Dyno Dyno Dynamics Dynapack

(Note: All Mustang and Dyno Dynamics results will be multiplied by 1.1 for calculations)

**Dyno Testing Procedures:**

1) At least three (3) separate, reproducible tests shall be made for each Fuel/Timing Map/boost controller setting.
2) The vehicle must be at normal operating temperature (as when on track).
3) The tires must be inflated to at least 28 psi (but should be at normal operating track tire pressure if higher.)
4) The hood shall be open, with a cooling fan placed in front of the engine/radiator during testing.
5) The vehicle must be tested in the gear producing the highest horsepower readings (typically the gear closest to a 1:1 ratio—commonly 5th gear for BMW M3's, Honda S2000's, Mazda RX-8's, Nissan 350/370Z's)
6) SAE J1349 Rev JUN 90 correction shall be used, along with a smoothing factor of 5.
7) Dyno graphs shall show horsepower and torque on the Y-axis (vertical), and engine RPM on the X-axis.
8) An inductive pickup or other direct sensor shall be used to measure engine RPM (not via the ECU/OBD port or from calibration from the vehicle's tachometer.)*
9) The numeric table of horsepower and RPM (in 50 rpm increments) must be printed out for the highest HP graph.
10) Testing Range (**check one**):
    ( ) Dyno graph shows decreasing power for 1500 rpm from the peak horsepower level
    ( ) Engine reached the rev limiter during these dyno runs
11) Engine, ECU, boost controller, etc. settings shall only be altered between Dyno runs to obtain the required additional sets of three Dyno tests for alternate ECU Fuel/Timing maps and/or boost controller settings.

* If it is not possible to obtain RPM data from an inductive pickup or direct sensor due to vehicle configuration making it impossible, the Dyno operator must note on the Dyno sheet the method used for obtaining RPM data, and the reason for not using an inductive pickup or direct sensor.

**Dyno Results (from test with highest Max HP—all numbers rounded to nearest whole number):**

Max HP_____ Max Tq._____ RPM at Max HP_____

Horsepower at 500 rpm increments above/below Max HP: (**circle three highest**)

Above: 500 rpm_____ 1000 rpm_____ 1500 rpm_____ 2000 rpm_____ 2500 rpm_____ 3000 rpm_____

Below: 500 rpm_____ 1000 rpm_____ 1500 rpm_____ 2000 rpm_____ 2500 rpm_____ 3000 rpm_____

**Avg HP** = (sum of Max HP plus three highest other data points)_____ / 4 = _____

**The Dyno results attached and the information on this form are certified as being true and correct by both the competitor and the Dyno operator:**

_____ _____/_____ _____

Owner/Competitor Signature Dyno Operator Name/ Signature Date