



# Mobil 1

## Solo Sprint

TIME TRIALS '10  
CHAMPIONSHIP SERIES



### SOLOSPRINT DYNO PLOT SUBMISSION

#### Section 1 – Vehicle Configuration as Tested

Car Number: \_\_\_\_\_ Year: \_\_\_\_\_ Make: \_\_\_\_\_  
 Model: \_\_\_\_\_ Engine Model: \_\_\_\_\_ Fuel brand and grade used: \_\_\_\_\_  
 Engine rpm limit: \_\_\_\_\_ Rev limiter setting: \_\_\_\_\_ Drive wheels & tires installed (n/a to hub dyno): \_\_\_\_\_  
 Naturally Aspirated? \_\_\_\_\_ Supercharged? \_\_\_\_\_ Turbocharged? \_\_\_\_\_ FWD? \_\_\_\_\_ RWD? \_\_\_\_\_ AWD? \_\_\_\_\_  
 For turbocharged cars – declared boost level: \_\_\_\_\_ (shall not be less than the maximum boost observed during the dyno pulls).  
 Gear used: \_\_\_\_\_ Gear ratio: \_\_\_\_\_ Note: Engine PIP declaration form must be completed when submitting a Dyno Plot.

#### Section 2 – Requirements

- 1) A minimum of three pulls along with hp vs. rpm plots showing consistent results must be provided.
- 2) For forced induction cars, boost vs rpm plots for each pull must also be provided.
- 3) Engine must be tested over the full rpm range. Full throttle must be maintained until within 100 rpm of the maximum rpm rating.
- 4) Transmission must be in the gear which is closest to 1:1 (unless another gear gives a higher dyno reading power result, in which case that gear shall be used).
- 5) For brake dynos the rpm sweep rate shall not to exceed 300 rpm/sec.
- 6) For inertia dynos, the drive wheels must be the race wheels and tires used for competition purposes.
- 7) Adequate forced air cooling must be provided to the radiator, intercooler and induction system during the dyno process. Adequate time must be provided between pulls to avoid heat soaking of the engine.
- 8) Air conditioning, headlights and any other non-essential load must be off when dyno testing.
- 9) Any action or omission that has the effect of reducing the observed power is a violation of the intent of the dyno plot rules and renders such results invalid.
- 10) Observed power must be corrected to SAE using the ambient temperature, atmospheric pressure and humidity.

#### Section 3 – Dyno Particulars (attach dyno plots)

Dyno Location: \_\_\_\_\_ Dyno Type: \_\_\_\_\_ Dyno Technician: \_\_\_\_\_  
 Phone Number: \_\_\_\_\_ Date: \_\_\_\_\_ Ambient Temperature: \_\_\_\_\_  
 Ambient Pressure: \_\_\_\_\_ Ambient Humidity: \_\_\_\_\_  
 Dyno sweep rate: (n/a to inertia dynos) \_\_\_\_\_  
 Observed Peak SAE power at wheels: \_\_\_\_\_ (WHP)  
 Correction Factor \_\_\_\_\_ (CF) (see table below)  
 Calculated HP = WHP / CF = \_\_\_\_\_

#### Correction Factors

Dyno type \ Drivetrain	FWD	RWD	AWD
DynoJet (inertia dyno)	0.865	0.855	0.845
Mustang (eddy current dyno)	0.840	0.830	0.820
DynaPack (hub dyno)	0.870	0.865	0.860
Dyno Dynamics	0.769	0.769	0.769

#### Section 4 – Competitor Declaration

I, \_\_\_\_\_ (competitor's name), hereby guarantee the authenticity of the attached dynamometer (dyno) graphs, produced on \_\_\_\_/\_\_\_\_/\_\_\_\_ (day/month/year) at \_\_\_\_\_ (name of dyno facility). The car as tested represents the current and final state of tune of my vehicle's engine for SoloSprint competition purposes. I will report any/all alterations to my vehicle's engine that may result in a change to the reported maximum horsepower rating, including state of tune, and I will submit an up-to-date dyno graph that accurately represents the changes made. It is my responsibility to ensure that an accurate dyno graph is in use at all times for my vehicle, and any violation of this rule, accidental or otherwise, will result in the immediate and retroactive (for the current season) reclassification of my vehicle using Section 5.0 A thru G. Fuel used for race purposes must not exceed the grade used for dyno purposes. If my car has a boost controller, I will adjust it at all times such that the declared boost level is never exceeded.

Competitor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

#### CCC USE ONLY

1) Car Classification Member Signature: \_\_\_\_\_ Date: \_\_\_\_\_

2) Car Classification Member Signature: \_\_\_\_\_ Date: \_\_\_\_\_