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## Pre-Dynamometer Checklist

1. Know the Goals
  - Outline all tuning issues for tuner in advance.
  - Flex-fuel vehicles should schedule double the dyno time.
2. Know the Limits
  - Research limits for engine, clutch, transmission, differential(s), fuel system, and turbocharger.
  - Avoid exceeding these limits to prevent damage.
3. Fresh Engine Oil and Filter
  - Change oil and filter before session for maximum protection.
4. Check Engine Oil Level
  - Ensure oil level is between minimum and maximum to avoid issues.
5. New Spark Plugs
  - Install correct spark plugs to prevent misfires and pre-ignition.
6. Gap it Right!
  - Adjust spark plug gaps for high-boost levels to avoid misfires. Gaps as small as 0.014" are OK.
7. New Fuel/Enough Fuel
  - Use fresh fuel and ensure a full tank to avoid running out during session.
8. Secondary Fuel and Fuel Containers
  - Bring enough pump gas (E10) and E85 for flex-fuel vehicles, plus containers for surplus fuel.
9. Ignition Timing Setting/Syncing
  - Verify ignition timing matches factory or standalone ECU specifications.
10. Check for Boost Leaks
  - Inspect couplers and clamps to locate and fix boost leaks.
11. New Fuel Filter and Clean Injectors
  - Replace serviceable fuel filters and clean injectors if needed.
12. No Check Engine Lights
  - Ensure no check engine lights are on to avoid altered ECU modes.

13. Proper Wastegate Spring/Actuator
  - Ensure wastegate spring or actuator matches desired boost pressure to avoid cutting dyno session short or losing performance.
14. Equalize Air Pressure in Tires
  - Verify all drive tires are the same size and pressure to ensure identical rollout.
15. Fresh O2 Sensors
  - Replace old or contaminated O2 sensors to ensure accurate air-fuel ratio readings and avoid engine damage.
16. No Coolant Leaks and Proper Coolant Level
  - Perform pressurized test of cooling system to check for leaks after properly filling and burping the system.
17. Know the Pedal Dance
  - Follow correct sequence to enter “dyno mode” for newer vehicles to avoid “limp” mode.
18. Fully-Charged Battery/Working Alternator
  - Fully charge battery and check alternator’s charging voltage to avoid voltage-related issues.
19. Individual EGT Sensors
  - Use individual EGT sensors for high-horsepower engines to monitor each cylinder and establish adequate ignition timing.
20. Verify All Inputs/Outputs on Standalone ECU
  - Verify all sensor inputs are correctly assigned and scaled on standalone ECU to avoid headaches.