REAL HORSEPOWER! ! !!!!!!

Under full throttle a dragster engine consumes 1-1/2 gallons of nitro-methane **per second**, 7 to 10 gallons (at $30/gal) in a sub 5 second run. Compare this with a fully loaded 747 which consumes jet fuel at the same rate with 25% less energy being produced. A stock Dodge Hemi engine does not produce enough power to drive the dragster's supercharger.

With 3000 CFM of air being rammed in by the supercharger on overdrive, the fuel mixture is compressed into a near solid form. The air/fuel ratio in our cars is 14:1, in the dragster it's 1.7:1. Cylinders run on the verge of hydraulic lock at full throttle. The flame front of nitro methane measures 7050 degrees F.

Nitro methane burns yellow. The spectacular white flame seen above the exhaust stacks at night is raw burning hydrogen, dissociated from atmospheric water vapor by the heat of the searing exhaust gases.

The sound of the 7000 horsepower engine is so loud that it registers a 3 on the Richter earthquake scale.

Dual magnetos apply 44 amps to each spark plug. This is the output of an arc welder in each cylinder.

Spark plug electrodes are totally consumed during a pass. After 1/2 way, the engine is dieseling from compression plus the glow of exhaust valves at 1400 degrees F. The engine can only be shut down by cutting off it's fuel flow.

If the spark momentarily fails early in the run, unburned nitro builds up in those cylinders and then explodes with a force that can blow cylinder heads into pieces or the supercharger off the engine or break the block in half.

Dragsters twist the crankshaft (torsionally) 20 degrees front to back. Cam lobes are ground offset from front to rear to re-phase the valve timing to synchronize the valves with the pistons.

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To exceed 300mph in 4.5 seconds dragsters must accelerate at an average of over 4G's. But in reaching 200 mph well before 1/2 track, launch acceleration is closer to 8G's.

Dra Dragsters reach over 300 miles per hour before you have finished reading this sentence.