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10 Awesome Things We Just Learned About Top Fuel Dragsters

Top Fuel dragsters have been around for decades, yet there is still so much to learn about them.

BY VINCENT MUZZIO

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Automobile racing has been around since the late 1800s, shortly after the invention of the gas-powered internal combustion engine. Auto racing took on many forms, and in the 1930s, drag racing organized on the dry lake beds of California became a sport. Hot rods and drag racing became synonymous over the years, and the popularity rose to new heights.


Enter the NHRA and Top Fuel dragsters with their high horsepower, fire spewing automotive powerhouses. These dragsters are the quickest accelerating race cars in the world and are the "Kings of the Sport". Even with the popularity of the sport, there are still several facts that are

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The Fastest Cars On The Planet



What makes a top fuel dragster so terrifyingly fast? Years of engineering and technology improvements have led to the massive power these dragsters put out. These cars are designed for one thing, to go as fast as possible in 1320 feet. These race cars seem to get faster and faster each year.

 Top Fuel Fastest - NHRA

Via: NHRA

In 1972 the speed record was 239.64 mph. Fast-forward to 2021 where the latest speed record was set at 338.17 mph. That's almost 100 mph faster in just under 50 years. The current fastest street car is the SSC Tuatara that reached a max 316 mph. However, this was over a seven-mile stretch of road and not just over 1000 feet like the Top Fuel dragster. The current highest speed in a Formula 1 race car is 231 mph. If you are looking for the fastest ride on four wheels, look no further than a Top Fuel dragster.




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The Engines Need To Be Rebuilt After Every Run Down The Track

 Top-Fuel-Engine---Reddit-1

Via: Reddit

Top Fuel engines produce so much power and force that they need to be rebuilt after each run down the track. The engines are basically built to go 1320 feet on the edge, seconds away from potential catastrophic failure.

 Top Fuel Engine Rebuild - Hagerty

Via: Hagerty

If you ever want to watch an 11,000 hp Top Fuel Dragster engine getting rebuilt, it is a sight to see. The team only has 75 minutes to completely tear down the engine, replace damaged or worn parts, and put it back together again for its next speed defying pass down the drag strip.

They Produce More G-Force Than A Space Shuttle Launch

Blasting off from the starting line in a Top Fuel dragster produces 5 Gs which is more than a fighter jet launch. The g-force produced from Top Fuel dragsters is also more than a space shuttle launch, which only produces 3 G's.

 Top Fuel G Force - NHRA

 Via: NHRA

Although brief, the amount of g-force on the drivers could cause issues if it was much longer than what they experience. According to the Federal Aviation Administration, prolonged exposure to 4.7 G's can cause a person's sight to go black, and at 5.4 G's someone could lose consciousness. It is a good thing these races are over so quick.

Fuel is the most important part of a race car, bringing life to the fiery beast. These cars only race down the track for 3-4 seconds but burn gallons of the liquid gold during that time. Not to mention the burn-out and reversing the car back to the starting line.

The average run down the track will use 5-6 gallons of nitro methane fuel. The fuel consumption rate is over 90 gallons per minute for the top fuel dragster engine. The engine would use 16-20 gallons of fuel just to go one mile. One thing is for sure, fuel economy is not on the top of the minds of the engineers that design Top Fuel cars.

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Top Fuel Engines Are Basically Bombs On Wheels

 Top Fuel Explosion - Twitter

[Via: Twitter](#)

The excessive amount of horsepower and fuel walk a fine line between perfection and disaster. This is a major reason the engine is rebuilt after each pass. If anything goes wrong inside the engine, fires and explosions are a high probability.


 Top Fuel Fire - USA Today

Via: USA Today

Imagine an engine exploding while you are driving 300 miles per hour. The results are terrifying and, unfortunately, can lead to crashes. The NHRA has implemented many safety regulations over the years to help ensure that in the event of catastrophic disaster, fire, or a crash, the drivers are safe and protected from these bombs on wheels.



The 500 cubic-inch supercharged V8 engine in the Top Fuel dragsters produces an amazing 11,000 horsepower. The combination of air and fuel combined with precise engineering helps produce this amount of power.

 Top-Fuel-Power---Terry-McMillen-Racing-1

Via: Terry McMillen Racing

A Top Fuel dragster cannot use a traditional dyno to test horsepower ratings due to dyno limitations and the fact the engine would overheat from the prolonged running of the engine. Special tools and calculations are used to carefully analyze data, which is used to come up with the base horsepower ratings of over 11,000 horsepower.


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They Are As Long As A Killer Whale

 Killer Whale - AZ Animals

via: AZ Animals

Top Fuel dragsters measure 25 feet long and weigh 2,330 pounds. Killer whales average between 20-26 feet long, making the excellent comparison for the length of the car. Even though you may not have seen a killer whale in person, you most likely have seen the extra-large whale on TV or in movies, giving you a perception of how long a Top Fuel car is. Other references could be a 25-foot garden hose or extension cord.


 Top Fuel Length - NHRA

Via: NHRA

Top Fuel cars are specifically designed to this length based on the rules the NHRA has put in place but also due to the engineering of the dragster. The length helps keep the car stable under acceleration and at high speeds, as well as helping to keep the front of the car on the ground.


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0-60 Mph In Less Than One Second

 Top Fuel 0-60 - Houston Race Report

Via: Houston Race Report

Top Fuel dragsters reach 60 mph in 0.8 seconds. These cars reach 60 mph within just a couple feet from the starting line. This is impressive when you compare it to what traditionally is considered a fast 0-60 mph time.

 Top Fuel 0-60 - John Force Racing

Visit: [John Force Racing](#)

A Porsche 911 Turbo S reaches 60 mph in 2.6 seconds, and Bugatti Chiron accomplishes the feat in 2.4 seconds. If you want to compare it to another race car, the Formula 1 car hits 60 mph in 2.6 seconds. Clearly, not much can really compare to the extreme acceleration of the Top Fuel dragster.


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Unlike Most Cars, Top Fuel Dragsters Do Not Have Radiators

 Top Fuel No Radiator - NHRA

Via: NHRA

Most automobiles have radiators to keep the engine cool and avoid overheating and engine failure. Radiators keep engines cool by transferring heat in the fluid to the outside air,

Top Fuel dragsters do not run long enough to need a radiator. The burnout and race is over so quickly that the engine does not have time to overheat. The radiator and accompanying system would also add extra unnecessary weight to the car as well as added fluids that would contaminate the track if there was engine failure.


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Top Fuel Dragsters Do Not Use A Transmission

 Top Fuel Clutch - Reddit

Via: Reddit

Most cars or trucks have an automatic or manual transmission used to shift between gears. Street cars have a basic transmission consisting of an average of five gears plus reverse, park, and neutral. Top Fuel dragsters do not actually have a transmission.

 Top Fuel Transmission 2 - Houston Race Report

 Via: Houston Race Report

Top Fuel dragsters use a high-tech centrifugal clutch in place of manual or automatic transmission. These clutches only operate in forward, high, and reverse. This is one of the many ways where efficiency, science, and technology meet to make these cars some of the fastest in the world.





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Vincent has been an automotive enthusiast since being a kid growing up in Europe and Asia. With his time overseas coupled with years spent in the US, he has an appreciation for a variety of automobiles. When not...

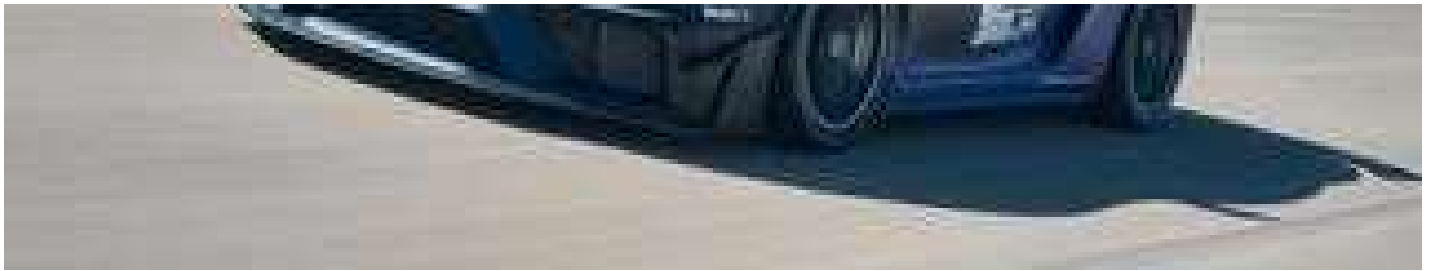
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