

# Fuel For Thought

Landspeed Louise

## 550mph Brain Trust Club; Dutch Carving Treat

Marlo Treit is big-toy boy. How many people can say they owned a fully operational Russian MiG? M/T can, three of them in fact. Snowy-haired Treit who started racing in high school after building a 1939 Ford Tudor for the drags and has driven 308MPH, but he has also been upside down at 250MPH spinning round and round back in 1985.

"My streamliner lost air in a tire,"

BLUE hat in the 300MPH Chapter.

After that, believe it or not, "he got bored" said Treit, and stopped driving so Korey Bligh stepped in and had some fun.

Speed is like an itch that can never fully be scratched, and today Treit dreams of tomorrow's great adventures laboring under the "Project 550" banner - as in 550 miles per hour. A project started a decade ago.

shape drawings from which Jim Hume built the wind tunnel model.

They were particularly interested to discover if there was good air available in the side of the body for the NACA ducts because the aft end of the duct is the start of the fuel injector inlet. Size was determined via a NASA formula that factors in an involved process of speed, air pressure and angle of attack.

"We still believe we are correct that the car will go 550," insists Treit, "When I say we, that refers to a brain trust as well as a talent pool who have contributed to the idea pile."

Examining photos closely (I haven't eyeballed the car yet) you notice that precision is rampant in every inch of the body and chassis. The design mantra stayed true: the least amount of resistance and smallest frontal area. The car will go to the starting line without any visible fasteners - every one is flush riveted to better than aircraft quality. Treit's lakester had 320 fasteners on the surface.

I also thought the exhaust header pictures were special and sure enough, they were. Made of aircraft stainless steel, the headers are double walled to minimize fire hazard with the shape and angle calculated to maximize downforce while simultaneously enhancing forward thrust.

"Jim Hume again spent six months building 4 headers," said Treit, "He got input from a crew chief of a world class funny car. More brain trust. All the pipes are also fitted

for temp recorders. The angle of the pipes from the front engine also had to NOT disturb the air going into the second air inlet."

Solid wheels are being tried by a number of racers, so I wondered if Project 550 was investigating and at what speed did he believe pneumatic tires became a liability to speed record setting on the salt?

"Tires are the most drag on the car and the only one you have little control over," he explained, "The solid tire has less drag but no traction. Been there, done that, did not work. So, rubber is at this time the only thing we can use. The drag begins when the tire starts to move and just gets worse as the speed goes up."

They will start with the same engine set-up they had in the lakester, but go for a pair of alcohol fed Keith Black 510 CID

Hemis, supercharged with screw blowers pushing 45 pounds of manifold pressure into each motor and developing 2,500 HP each.

When I quizzed Treit on why he was making such a big deal about piston-power, that wasn't taking the wheel-driven record enough of a task; I unwittingly opened an old wound.

In the early 1960's Treit ran a turbine drag cars, spending six years working out the bugs. Heavily invested, he had just started an exhibition tour and then "got slapped in the butt by the rule makers" when NHRA banned turbines. SCTA and BNI followed suit.

"I have never been an insider," Treit noted bluntly, "I had tried for three years to get to just run for time only on the salt. "NO" was always the answer."

When a special, multi-tiered class was later developed for Ernie Immerso's turbine streamliner, the sting went deep. Was Treit a victim?

Years ago, long before the days of 500+ pre-entries, if you had three entries you could start a class. When Immerso was resurrecting his four-engined Thunderbird streamliner to use a pair of turbines and simply bought three entries, which created the class.

"I don't know when that stopped, or exactly how it was done many years ago," explained Don Ferguson III, the current SCTA Sergeant At Arms," but there is no "insider information" — you have to do your homework to find loopholes, its not who you know but what you know."

Feisty as he is fastidious, Treit has missed only two years of Bonneville racing since 1957, some years running three events. Why does he proclaim Project 550 is "the most sophisticated and aerodynamic vehicle produced by privateers?"

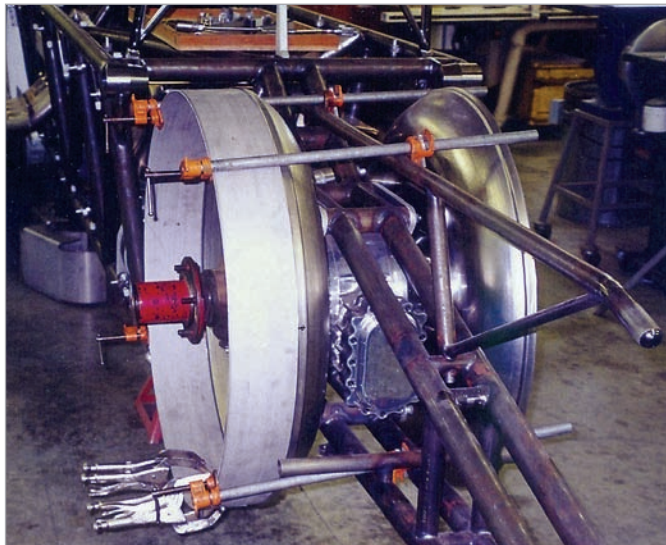
Take note: "This project is financed out of my pocket which makes me a privateer," he told me, "It is not that I will not accept a sponsor or sponsors, but, at this time, I am indebted to no one. The connections that I have developed over the years gave me the insight to look at some of the best-developed cars as well as some of the worst. By looking at both with the same level of interest, one becomes somewhat of an expert as to what not to do."

Treit believes that people are interested in things that are different and go fast. The car ought to be ready for deceleration and parachute testing by the time you read this. Look for it on display at the World Finals in October and then at the upcoming land speed racing display at the Wally Parks NHRA Museum in November.

"I believe that without the SCTA/BNI schmucks like me would never be able to run a car," he concluded, "I owe a debt of gratitude to not only the organization, but all the volunteers to show them what they have allowed me to do."

### CARVING FAST FUN

What appeals to me most about land speed racing is the variety born out of minimal restrictions. Up to now, I have kept my snout out of the ever-expanding "battle of the classes" but after spending time behind the wheel of a new tandem theater seat



explained Treit of the crash that led to his driving retirement, "Not a good day."

A wily, compact fellow with exhibitionist tendencies, he first appeared on my radar while racing a blue, open-wheel lakester that depended on a retired EMT vehicle for a push truck. Under the sweltering Bonneville sun, he wore a grey flannel top hat making me wonder if Alice and the Cheshire Cat were part of his pit crew.

Driven by Les Davenport, the lakester achieved a top speed of 333MPH and set a 329MPH record in Class B/fuel. Davenport, a veteran drag racer, has made dozens of runs in excess of 200MPH, but wasn't interested in getting a red hat from the 200MPH Club, opting instead to set a record in excess of 300 (4 of them) before he would go to the banquet and claim his

"I have never liked rules and limits," offered Treit, "I had been putting away parts for some time and had discussed building a new, fast car with Kent Fuller. I consulted Dr. Mike Seal at Western Washington University in Bellingham because my idea would require wind tunnel time and they had one."

Seal and I laid out mechanical and design parameters to see what the end of the envelope could be and it was concluded that 550 was within reach, but having enough room to stop would be the largest hurdle. Because Les is also an engineer who operates a CNC shop, stopping the car became his problem."

That fixed the boredom problem. Treit then sketched out the drawings for the powertrain. Doc Seal drew the body

car/bike I might advocate for a "carving class."

This thing is a kindred spirit to all things ingenious. Carver One's Dutch designers were thinking waaaaay outside the box back in the early 90's when this machine was conceived because it shuns convention with a delightful flourish

I was drawn to the Carver like a moth seeks a light bulb. I got to drive one all over the outskirts of London in late March. Paul Roxan, a director at Carver UK, was kind enough to take time to meet me for a late-morning test drive.

The vehicle won't set any speed records powered by a 569cc turbocharged 4-cylinder that will get bounced for a hopefully more powerful bullet when the US market homologation takes place.

Carver does what its name says, and good debate can be had about whether it is a car or a bike. The single front wheel and steering is very bike-like while the back end is doubtless the skinniest hind end you've ever spied. Simply put, you steer it like a car and it banks like a motorcycle.

The company mantra insists that banking is the only natural way to take corners and that bringing the centre of gravity towards the centre of the curve ensures stability. Further, if the vehicle is to be user-friendly, then the banking must done automatically rather than being set by the driver.

The passenger compartment of the Carver One effortlessly banks from left to right while the two back wheels stay firmly planted in the rear. The surprising agility gave me confidence to maneuver with control even in emergency situations while having a gob-smacking good time. In a word, Carver One is: obedient.

The pivoting action does require some practice to deftly throw the vehicle off-center when entering a curve. About 50 laps on a double roundabout getting used to the 45 degree tilt angle was all it took before I peeled off onto the dual carriageway, motorway and finally towards the city center to see how the Carver One fared in urban traffic.

Power assisted front wheel steering and active rear wheel steering never let me down. It was just as well-behaved and stable at highway speeds as it was in a school zone or a busy shopping area. I always felt the center of gravity was firmly in place.

If anything, it's the other folks who had problems...concentrating on their driving when the Carver zoomed into view!

At the heart of the Carver One lies the Dynamic Vehicle Control (DVC™) system, which automatically adjusts the tilt angle of the cockpit to the speed and acceleration of the vehicle, enabling a plane-like "tilting before cornering." The electronic control unit moderates the cockpit response at low speeds.

This mechanical-hydraulic system uses a steering torque actuator coupled to the DVC™ manifold driving two double piston cylinders while an additional separate hydraulic system provides for a fail-safe emergency backup solution. A nice touch is being able to select a driving mode according to your mood and road circumstances.

The factory claims 115MPH top speed, but I only throttled up to 85 on the motorway more out of fear of my license, than worry over that the 15-inch rear alloy wheels and front 17-inch front wheel would stay planted.

Note from the Twilight Zone: When Roxan pulled onto the shoulder after demonstrating how to drive Carver One, I glimpsed the light pole number a few feet away...458...the speed that Don Vesco

attained to set the World Wheel-Driven Record in 2001. I chuckled thinking Don would have a Carver in the driveway, it would have been just his kind of big boy toy.

The company website, [www.carver-worldwide.com](http://www.carver-worldwide.com), has videos of this wild

machine turning heads on highways and byways. Watching it is an eye-opener, but driving it parks a grin above your chin, test drive one if you can! **GG**

**Note:** Photojournalist Louise Ann Noeth is the authoress of the award-win-

ning book, *Bonneville: The Fastest Place on Earth*, a complete historical review of the first 50 years of land speed racing now in its 6th printing. For more details and to order, go to: [www.landspeedproductions.biz](http://www.landspeedproductions.biz).



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