

Who the #\$\$!% is Don Vesco?

(and how did he set a 458 MPH World Wheel-Driven Record?)

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The late Don Vesco was a fascinating mix of accomplished motorcycle rider, racecar driver, race vehicle designer, engine tuner, team owner and fabricator. Take your pick; he did it all and did it well. Very well. Vesco accomplished enough to satisfy several lifetimes, but you never heard him brag about his many achievements.

Never heard of the guy? Years ago, Vesco printed up T-shirts that asked, "Who the #\$\$!% is Don Vesco?" and wearing one to school usually got you thrown out for the day. Vesco would laugh that chuckling laugh that seemed to mimic an idling four-port Riley engine.

Vesco was the first person in the sport to hold both world land speed records – car and motorcycle – and although gone now nearly three years, beaten down by prostate cancer; he still holds 7 motorcycle and 6 automotive land speed records. His world motorcycle record stood for 19 years at 318.598 MPH.

It's not hard to be awed by the

man's stamina with speed. At the top of his string of speed marks, albeit one-way, are:

Fastest Motorcycle: 333.117mph

Fastest Wheel-driven vehicle: 461mph

In December of 2001, Don and I spent a couple hours talking about speed and his 458MPH World Record set driving the streamliner earlier that year on the flats in October. I recorded the entire

conversation and now, share it for the first time, with the folks Don identified with most – you -- land speed racers.

Before we get into it, let's recap this man's incredible racing career, especially

we jokingly referred to at times as "Pappa Smurf" because that's what he looked like in his royal blue fire suit.

Beginning in 1957, with motorcycle speed attempts at the Bonneville Salt Flats at age 16 until his death in December of 2002, Don Vesco's verve for racing never diminished one iota. A proverbial, "Beaver Cleaver," he was a 62 year old guy with the adolescent spirit of the collective All-American kid. I once referred to him as a "terminal teenager", but was corrected by life long buddy Gordon Menzie who adroitly pointed out that Don had "never got past adolescence."

Vesco was a master at practical jokes. My favorite stunt was when he would send live garden snakes in parts packages to race teams that were a bit behind on paying its bills. Imagine ripping the box open and having a slithering camshaft emerge!

He also nicknamed folks. If you got one, it stuck. I became "LSL," short for "Land Speed Louise" and it is the only nickname to which I have ever responded.

Don Vesco led by example, and many folks followed his lead. A factory rider for American Honda Co., Yamaha and Kawasaki, he won the 1963 U.S. Grand Prix Open Class at Daytona Beach, Florida on a Yamaha 250 cc, providing Yamaha its first ever American victory. That same year he became a member of the exclusive Bonneville 200 MPH Club in father John Vesco's 444 streamliner powered by an Offenhauser engine with a 222 mph

those who never had the pleasure of spending time with the white-haired fox. Vesco was an incredible tinkerer and high-speed dreamer



average for automobiles.

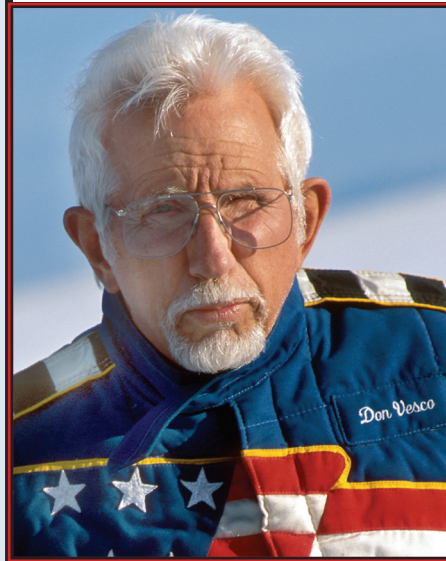
By the time the 70's rolled around, Don was the first person to drive a motorcycle at more than 250 MPH. In 1974, he nailed a new American Motorcycle Association (AMA) record with an average speed of 281.702 MPH on the salt flats. In 1975 aboard his hand-crafted "Silverbird" streamliner, Don became the first rider to exceed 300 MPH, setting a new AMA record of 303.928 MPH in the process.

Competition for this man has been scarce, so he was forced to repeatedly break his own records. With ABC's *Wide World of Sports* on the scene and cameras rolling, Vesco not only broke his existing record with "Lightning Bolt I," a Motorcycle Streamliner, but also turned in the fastest speed of the 1978 Speed Week meet at Bonneville, a 333.117 mph average —outpacing all the cars as well.

The first development runs of what became the "Turbinator," a world land speed record streamliner, took place in 1996 at



Above: Vesco heard the tire explode just as he finished the 458MPH record run. Look closely and you can see tire fragments trailing behind the car, a couple of big chunks are just above the drogue chute behind the canopy. This was truly a "run flat" tire.
Below: The late Don Vesco, multiple World Land Speed Record holder in 2001.



a mere 15 feet inside the black line, still on the course. That boy could drive, wow, could he drive.

So what's it take to make to the top of the speed heap? I believe it is fitting that you read, just as I heard, what the speed king had to say. Buckle up.

LSL: Do you think there is a limit to the wheel-driven record?

DV: I think that will come when the traction limit is exceeded by the amount of pressure on the nose of the car. We don't have any traction problems now, so I don't foresee any problems. The car has never been in a wind tunnel, so we don't know how much pressure is on the nose of the car at the present time.

LSL: What's it take to get the Turbinator ready for a run?

DV: Nick Pappas, Rob North, Rick and I developed a 25-point checklist with input from the whole team so that things don't get forgot.

LSL: Ever figure out your gas mileage?

DV: We burn about six gallons per run, or one-mile to the gallon. I spend about 10 minutes in the car – tops -- but the run only lasts about 90 seconds.

LSL: Is the Turbinator difficult to drive on the salt?

DV: It's the same as any of the many other vehicles I've driven, only smoother. Power comes on like a turbo-powered car, all of a sudden, but smooth like an electric motor. It is usually a boulevard cruiser. It all depends on track conditions. When the track is soft, or bumpy then it is a battle to make corrections. The car is so narrow that if I get caught in a groove I really have to fight to



TEAM Vesco

World's Fastest Wheel-Driven Automobile 458 mph

Bonneville. The car gathered speed over the next few years setting and then breaking the SCTA national record for turbines at 427 mph in 1999, the same year Vesco was inducted into the *AMA Hall of Fame*.

In October 2001, together with brother Rick, TEAMVesco set a new World Record Land Speed for wheel-driven automobiles at 458 mph and erasing Donald Campbell's name from the record books where it had been inked back in 1964 bringing the record to the USA for the first time.

It is significant to note that this 458 record was the first time in FIA history that the sanctioning body made a distinction between "thrust" and "wheel-driven" records on the actual speed record certificate. Up until that time, only the

category, type and class had been listed leaving viewers to figure out what the record was all about.

What many do not know, or recall, Don didn't just average 458, he made back-to-back runs of 458MPH. Each pass was at the ragged edge of what the engine was capable of exerting without getting blown to smithereens. Don had to keep a close eye on the temp gauge while hurtling across the salt. The problem was, only one of Don's eyes worked, the other had been blinded by a flying clump of dirt years ago.

Add the flat tire in the timing light on the second run and Vesco gave new meaning to the term, "run flat." Although the Turbinator tried to shake the teeth out of Vesco's head, he wrestled with the streamliner stopping it

get out of it because the cars follows it like a railroad track and it goes where I don't want to go. I've hit the mile markers and the cheesecloth material made a permanent impression into the paint.

LSL: What occurred when the tire went flat in the lights at plus 450?

DV: Rick and I had gone out in the morning and picked up all kinds of things off the track. Things fall off racecars and support trucks — Nails, pop rivets, Dzus fasteners. Sometimes we even find rocks that came out from under a fender.

I heard the bang when the tire blew right at the finish light. I ran over something. I put out the parachute and that stabilized the car until I slowed down to around 300MPH. Then the car started pulling to the left, heading toward the dyke. When I tried to correct it would tilt like a motorcycle which made it go harder to the left, the more I tried to get it to go right, it veered left. The left rear tire was flat, which meant I had to keep the nose down by steering left which rocked the car back onto to the right rear tire and me going any further to the left.

When I touched the brakes it tended to pick up the front end, so I didn't want to use the brakes. I could have put out the low-speed parachute, but didn't want to take a chance of making it worse and I had plenty of room to whoa it down.

LSL: Rick built the Turbinator, why doesn't he drive?

DV: He has too many other things to do, like keep the salt good and make sure its nice and smooth for me. I don't want to burden him with having to drive the car, or have to do anymore than he absolutely has to. He's my little brother. I have to take care of him. I don't want to see anything happen to him. Besides he's got a wife and kids.

LSL: How did this quest for the wheel-driven record get started?

DV: Rick and I were always after that record; he was after class records with the 444 car. I figured I could do it with my motorcycle, I could get up to about 425, when the top speed was 409, but I didn't have tires, so in the mid 80's I put my Offy engine in and reworked it into a skinny 6-wheel car we

called the Skytracker.

It had 1,000 HP, weighed 1,500 pounds, 32-inches tall and was 20-inches wide; it would have been extremely fast. It was a cross between a car and motorcycle that was semi-unstable and it got real unstable when the tire went flat. I crashed, totaled the car and broke my foot, hand, and vertebrae in my neck.

Meanwhile, Rick had been working for years on what ended up as the Turbinator. Neither one of us had any money, but we had the desire. After I wrecked we decided it would be better to join forces than compete against each other. This helped Rick finish the car quicker, because I built the suspension, drive train and the 5-speed, close ratio transmission for the Chevy engines.

We started with rear wheel drive at first and then later added the more complicated front wheel drive, but ran out of power, switched to the Offys, but broke too many expensive parts, ran out of power again and finally decided the turbine was the only way to go.

LSL: What taught you the greatest lessons . . . driving, or crashing?

DV: Crashing. I learned to get the roll bar up higher. I never figured on the centrifugal force when cars start "endoing." The force stretches the shoulder harnesses. I had 2-inch webbing and went to three-inch after that. We also broke the back of the seat and learned that had to be made really strong.

I started wearing the dog collar. If I had had it when I crashed the Skytracker I wouldn't have broke the vertebrae. My head was bent against my chest and when it slammed down on the top of the cage upside-down it broke my neck.

The strange thing was figuring out how I got the two puncture wounds in my leg, yet there were no holes in the firesuit. We determined the injuries were the result of my legs banging around, so I started strapping them down to the floor attached to the quick release harness.

We also learned from Bob Leppan when he crashed his Triumph streamliner. His

arm got loose outside the bike and almost ground it off. My dad created wrist restraints and we started using them right after that, but I don't have to get myself hurt to learn a lesson.

LSL: Have any of the crashes put a fear into you?

DV: I look at it from the standpoint of having made a mistake, something we didn't perceive. It doesn't scare me. It hurts me. I want it to stop, but I'd heal up then make changes so I don't make the same mistake twice. It's always pedal to metal with me. I don't believe in "working up to speed." I run it up to a point where I have a problem then back it down and work the problem out. That's my strategy.

LSL: What do you personally get out of racing?

DV: I just like to do it. It was a big high for Rick and the team when we did the 458, but I know we can go much faster, so this is just a rung on the ladder to me.

I like the challenge of trying to beat someone right next to you. Outsmart 'em, out brave 'em, or out brake 'em. I enjoy rubbing elbows with people at high speed, to gain an edge over 'em, or snooker 'em somehow. I like the speed, going around a corner as fast as possible without crashing.

LSL: What were your top three obstacles to setting the record?

DV: Money, money and money. Whatever I earn I put into this car. With money we could go to a wind tunnel. With money we could get more engineering work to run way past 500, up to 600—with what we have now. It's all money, with money we have no obstacles.

LSL: Do you think it is possible for a wheel-driven car to exceed the sound barrier?

DV: Some folks have told us we are already into the transonic stage. I know the surface speed of our tires has already exceeded the sound barrier and nothing bad is happening. The tires we are using are supposed to be good to 700MPH. The Turbinator isn't designed to go supersonic. We'd have to change the bodywork and canopy, add a pointy nose, it would take a lot of work and

we'd have to take a scientific approach, but I would love to try it.

LSL: What are the upper limits of the Turbinator in its present configuration?

DV: Bob Hodgkinson has calculated that it will go 635MPH. I believe it is possible; the only problem is that we don't have enough distance. I have no worries about traction, we just have to accelerate harder and that means the exhaust temperature will come up faster, so we need to get more air into the engine quicker for cooling. It's that, or we need a longer track.

This car has never peaked. If you take the speed its gone — 0 to 470 — then take the graph that comes off the axle speed you'll see that it's not on a curve, but a flat acceleration rate. I've peaked my motorcycle and when that happened the bike started to hunt around, that may not happen with the car, but I won't know until I peak the power.

When we changed from the old Firestone Tires to the Mickey Thompson tires the diameter of the tire increased our speed by 100 miles per hour at the same RPM and that's with 2-inches of growth on the tires. Theoretically, as the engine spools up to more of its potential, the car may accelerate faster, then we wouldn't need another four miles of salt. If I were to gear it down, then I might need to change it out to a two-speed transmission where I can take off using a lower ratio gear and then shift it. I've been thinking about that.

LSL: Take us for a fast ride in the Turbinator.

DV: You must first understand where my head was just before those runs. I had made a run prior to the record runs where we were testing the parachute. I just about turned upside down, the parachute had me all over the place.

The car is started before the canopy is locked down. My tachometer reads as a percentage of RPM, so I use the airspeed indicator and go by the "feel" of the car to figure out where I am. It starts out slow, like a Greyhound bus, but when the blend band closes its like a turbo wastegate closing and

then you're on your way, the acceleration is pretty rapid.

I hear the air inlet noise, the compressor and the howl of the driveshaft, by its pitch I can tell how fast I'm accelerating. We don't have any two-way communication, not that you could hear yourself talk because I sit right in the path of the air inlet and that's like sitting inside supercharger. At the rate we are covering the ground I have to know where the markers are and since I lost my eye, I have to keep glancing down at the instruments, especially the digital temperature and airspeed indicator gauge and then back out at the course.

On the test run, I was so busy watching the temp gauge that I didn't know where I was on the course and I just happened to catch the 5-mile marker and put the 'chute out running about 360MPH. Before the record runs, we re-cut the dash and raised the temp gauge up so I didn't have to look away from the course so much.

This car backs down quicker than it accelerates, you've got to remember the parachute goes out twice as fast backwards as you are going forward, and it hits in milliseconds, peeling off at least 100MPH almost instantly. I get completely stopped in less than 30 seconds, quicker if I use the low speed parachute first. The entire run only takes 74 seconds — about 10 runs at a dragstrip.

On the first record run, I was easy on the throttle, normally I like to nail it, but I had to keep the temp down so I had to lift 16 times so the engine would cool down. When it got down to 1350, I'd stand on the throttle again. The temperature climbed as far as 1428 once — that's inside the burners, not the exhaust. We probably lost 30 miles per hour doing that, but it was smooth and I could see couple miles ahead so it was easy to keep the car straight, like sighting a rifle.

On the return run it was the same situation with the temp gauge, I had to stand on the throttle harder, earlier, lifting 18 times and went through the lights over-temped, about 1,458 degrees. It was rougher course with some potholes and I lost a wheel weight off the right rear tire. That caused some

vibration, but didn't concern me enough to back off. Remember, each run was just a little over a minute each time and we cover a mile in 7.25 seconds so lifting off and getting back on the throttle means I drive mainly by instinct.

When the tire blew out, the car dropped a little in back, right exactly at the lights so I put the parachute out and that helped pick the car back up and keep it going dead straight. When it first hits, the 'chute has control of you and the car, you might be able to guide it a little bit but that's all.

LSL: What does your future hold?

DV: Sub-seven second runs. I'd like to park the Turbinator and build a twin-engine car. I think it would make it interesting to set world car and motorcycle records on the same day. It would be something different, nobody's done it. I feel privileged that I got to opportunity be the first person to set the world motorcycle record and then later set the world wheel-driven record.

Epilogue: Don Vesco was never a wealthy man, nor was he ever high on the celebrity radar, or a guy who was prone to shallow glad-handing and backslapping. Vesco's greatest achievement: he earned the admiration and respect of his peers. It outweighed everything else.