

The Man behind the Dyno: Harvey Stuska

1967--It is Thanksgiving weekend at the Kilo Trials in Parker, AZ., and Colorado racer Harvey Stuska, just set a straight-away world record for the flying kilometer at better than 113 mph in his Lotus-powered 91 cubic inch hydroplane, L-64 Metisse.

Stuska, a self-taught engineer, built his hydro from scratch, equipping it with a Lotus-Ford engine. Engine specialist and confidant Hank Candler said Stuska came close to setting the record a year earlier. "I was racing 91 cubic inch cars at the time and Harvey called asking to borrow the camshafts out of my Lotus for his boat," Candler said. "Now, the ideal cam for a boat is entirely different than the cam for a car." A car has four or five gears and a boat only has a straight drive from the engine to the propeller.

Using a camshaft with maximum horse power at top end is almost impossible to use in a boat. Determined to make it work, Stuska modified the camshafts and reshaped the lobes. His real challenge was getting the boat to plane out of the water at a low enough RPM. "He would call me once a week to curse my camshafts," Candler said. "The boat had so little power at the bottom end that he went weeks without getting it out of the water, but he finally figured it out."

Stuska's relentless pursuit led him to victory that Thanksgiving weekend. However his lust for speed left him unsatisfied. He began telling friends what he needed to change next. "Harvey could be very cantankerous," Candler said. "One day you could come in to see him and he would be all smiles, and then the next day he would look at you like he wanted to kill you." The man was hard-headed at times but he was passionate about engines and speed. Stuska enjoyed figuring out how an engine could perform at optimum speed. This curiosity led him to build a dynamometer, the Stuska Water Brake Test Stand.

"He developed the dyno from scratch using his own knowledge and intuition," Candler said. "Harvey was not a degreed engineer but he knew more about machinery and how to run machinery than anyone I know." Stuska did receive an engineering certificate from the State of Colorado. It was during a school research project where he came up with his first version of the dyno that could handle 60 to 65 horsepower.

Craving more and the urge to expand on his dyno, Stuska opened a small industrial shop on Cofax Avenue in Denver. Former Stuska Engineering employee and Shop Foreman Mike Sutton said Stuska was determined. "He built two or three of them and broke a couple of them trying to figure out what to do. We finally refined them and created three or four different models," Sutton Said. "He designed 99 percent of the stuff that came out of the shop and it was something he really enjoyed."

Since 1963 the Stuska Water Brake Test Stand has been sold all over the world to speed shops and racers, providing them with a durable high performance tuning system. Stuska's obsession with speed and perfectionism geared him for success as an entrepreneur. While he found joy in designing test equipment and building engines he also liked to live life on the edge.

Colorado is famous for having extreme trail riding and Stuska felt right at home cruising on his 175 Honda. Candler said they would go on 100-mile enduros along trails that were two-feet wide on the edge of a 400 foot cliff. "Our trail rides here are not for the meek of heart," Candler said. "We go to the tops of some of the 14,000 foot high mountains and we would watch the lightning strike other 14,000 foot peaks."

A pilot has to put oxygen on at this altitude, and to push man and a machine in this thin air is not the most ideal, meaning the men were in pretty great shape. "We got our euphoria from riding motorcycles, racing boats and driving race cars on tracks," Candler said. "I got it racing cars and Harvey got it racing boats." Stuska felt a sense of freedom when he rode his motorcycle Candler said. For a moment he was able to tune out that constant urge to prove himself as an engineer, but all good things must come to an end.

In the early 2000's Stuska was designing a new Dyno when he realized it was time to pass his success on to a new generation. "There was a whole new era of electronics evolving and Harvey decided he wasn't going to put in the years it was going to take," Sutton said.

Stuska closed up shop in 2002 and sold his company to Power Test, Inc. in Sussex, Wis. CEO Alan Petelinsek said Stuska was eager to hand over his years of hard work to a trusting company. "We saw a great opportunity and potential in the Stuska brand," Petelinsek said. "Harvey was appreciating and he knew we could build on his success."

Since then Power Test has expanded the Stuska brand into the modern era by building the track master system around the legendary Stuska brake. Stuska's genius and passion for speed drove him to success as an entrepreneur, racer and engineer. "He was a man who wanted to work hard, dream and be creative. He really exemplifies the opportunity there is in America," Candler said.



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