



Joe Jagersberger

by Kem Robertson

In the 1920s and into the 1930s, early racers that ran Model 'T' Ford blocks used specially-designed overhead valve cylinder heads that made a competitive engine from the stock flathead Model 'T'. There were just three major manufacturers of the special heads for the Model 'T': Robert Roof in Anderson, Indiana; Indianapolis brothers Arthur and Louis Chevrolet and their Frontenac heads; and the Rajo heads built in Racine, Wisconsin, by Joe Jagersberger.

Joe was the merchant of speed for local racers and the good reputation of his equipment made Rajo equipment nationally competitive. His racing cars and equipment were the starting point for many of early race cars of Carl and Trudy Marchese, Bill Laudon, Stan Norwicki and Russ Trudell, to name a few. Rajo heads were sold all over the world.

Joseph W. Jagersberger was born in Weiner Neustadt, just south of Vienna, Austria, on Valentine's Day (February 14) in 1884. The son of a baker, Joe was a mechanical prodigy and became an engineering apprentice at Daimler Motor Works (later known as Mercedes) at age 14 in Stuttgart, Germany. His mechanical aptitude landed Joe in his first race next to Carmelle Janatz in a Daimler car running an endurance race from Vienna to Salzburg, Austria, in 1897. It was Joe's job to keep the single-cylinder, four-horsepower engine running. They were the only ones to finish the 90-mile race, averaging 15 mph.

Joe Jagersberger was part of many races in Europe from 1897 to 1903 as a riding mechanic or driver. It was at the 1903 Gordon Bennett race in Ireland that Joe met two millionaire Americans: Harry Harkness, the vice president of Standard Oil, and John Jacob Astor IV, a New York fur baron. Astor persuaded Joe to come to New York to be his chauffeur.

Little is known of Joe's early racing career in America but it started almost immediately after he arrived here in 1903. Joe teamed with Harkness for several races in the New York area, with their first coming at the Monmouth Fairgrounds mile dirt track in Long Branch, New Jersey. Later, Joe drove a 40-horsepower Mercedes up Mount Washington, New Hampshire, in just over 20 minutes in the "Climb to the Clouds" race. Together with Harkness, Joe ran the Boston-to-New York, 254-mile race in six hours and 55 minutes on June 20, 1904. They teamed up again that year to run from New York, New York, to Pasadena, California, in three weeks.

From 1907 to '09, Joe also built and raced motorboats, Miss America 1 and 2.

In 1910, the J.I. Case Threshing Machine Company entered the automobile business through a marketing arrangement with the Pierce Motor Company, maker of the Pierce-Racine automobile. Case advertising manager Merrill C. Meigs persuaded owner Jerome Increase Case to promote the new cars by developing a team of race cars. J. Alex Sloan, the former publicist, sports writer and promoter of Barney Oldfield, was hired to be the team's manager. Sloan promptly hired Joe Jagersberger, who moved to Racine, Wisconsin, site of the company headquarters.

The 1908 American Automobile Association (AAA) national champion, Lewis Strang, was hired as the team captain. Strang was not only a powerful athlete, but he also had the capability to build cars as well as drive them. Joe Jagersberger was the second member, with the third J.I. Case teammate being Milwaukeean William Jones. The team entered all three cars for the first Indianapolis 500 in 1911. On the home stretch at lap 87, Jagersberger's car had a steering component failure that splayed the front wheels and riding mechanic C.L. Anderson found himself on the track. The Strang car had the same failure on lap 109. The concerned Case team withdrew the Will Jones car at on lap 122, with the concern of a third similar steering knuckle failure.

The 1911 racing season looked promising for the Wisconsin-based group, but was a difficult time for the Case team. On June 8, Joe Jagersberger won two events at the Chicago Algonquin Hill Climb. He also had a strong showing at the Chicago Hawthorne dirt oval. On July 20, Strang was killed as a result of an auto accident when his car overturned on a bridge embankment. Joe was a passenger in the car and sustained a sprained ankle and a bruised back.

Shortly after his return, the Case team headed south for a series of events. The first stop on this trip was for a race at Columbia, South Carolina. On November 1, the team was practicing when Jagersberger lost air in one of the rear tires, sending him through the board fence. His riding mechanic jumped free of the car before impact, receiving minor injuries. Joe did not fair as well. He was first struck in the face by one of the boards, embedding his goggles into his face and damaging an eye. The car rolled over on Joe, pinning his right leg and causing a compound fracture between the knee and the ankle. Months later, due to complications, the right leg was amputated five inches below the knee. Within a month the remaining Case driver, Jay McNay perished at Savannah.

Joe, also known as "Dutch", returned to Racine in March after a four-month hospital stay in South Carolina. He had plans to build a new car that he could drive with his wooden leg. The driving plans fell through due to the long recovery time from the injuries. This accident finished Joe's career as a racing driver, but not as a builder nor as a manufacturer. Joe would continue to work for Case, continuing to build race cars as he had prior to the accident, and working on other Case projects from 1912 to '14.

This was a new beginning for Joe Jagersberger and it would impact many racers of the Model 'T' Ford era. In 1914, he left Case and started Rajo Manufacturing Company, building various automotive parts and manufacturing spark plugs. By 1919, he had developed an overhead valve conversion for the flathead Ford block that would almost double its horsepower. The company was restructured in October and Rajo Motors was incorporated with the capital stock of \$25,000. 'Rajo' was an abbreviation of 'Racine Joe'.

Joe Jagersberger went on to design and manufacture many influential heads for the Model 'T' Ford, including the Model 30, which had four exhaust ports and one intake all on the right side of the head, and the Model 31, which had two intakes on the right and four exhaust on the left. This was the cylinder head that Noel Bullock used to win the 1922 Pike's Peak race in Colorado. The Model 35C was also called the Improved Rajo Valve-In-Head and had two intakes and three exhaust ports on the right side. After 1924, this head was known as the Model 'C'. The Model 'A' was a four-valve 'F' head, which had two exhausts on the right side and used the stock intake ports in the block. His Model 'B' had two intakes on the right and four exhaust on the left side of the head. There are three versions of this head. The BB had higher compression. The BB-R had high compression and two plugs per cylinder.

Jagersberger also developed a double overhead cam (DOHC) head design and casting patterns. This was sold to Jack Gallivan, who modified it to produce the Gallivan DOHC. Joe Jagersberger also sold him a single overhead cam Chevrolet conversion. This conversion was sold to John Gerber, who redesigned it to his own specifications.

Later in 1925 or early '26, Joe redesigned the DOHC head and produced at least one DOHC Rajo that Russell Trudell of Milwaukee raced with some success. Other developments were a twin cam Model 'A' Ford head with the intake cam and intakes in the block and an overhead cam for the eight exhausts in the head. A RAMAR 'F' head was developed and manufactured by Jagersberger for the Model 'A' Ford Block with Max Markman in the early 1930s.

Joe Lencki came to Joe Jagersberger for the development of a DOHC engine that Lencki would run in the 1935 Indy 500. This Indy engine was a redesign of the Model 'T' DOHC conversion with a special Rajo/Lencki five-main block. This head later became the basis for the Leo Krasek DOHC.

The last known head designed by Joe was for the early 1950 Chevrolet six-cylinder engine. This special head had a twin intake system, with six intake ports instead of the stock three ports. It was marketed in 1951 for \$169.50.

Joe Jagersberger, who had married Amanda Olle in 1919, passed away in Racine on October 5, 1952.