

# The WACO 10 OX5

by Lynne Belluscio

The Woodward Airport had four WACO 10 biplanes that were equipped with OX5 Curtiss engines. Both Russ Holderman and Otto Enderton flew the WACOs in races and airshows. The four WACOs held the registrations numbers NC5591, NC6975, NC5667 and NC940. Manufactured from 1927 until 1933, the WACO 10 was an updated version of the WACO 9.

During the seven years of production, 1623 model 10s were built. They featured the first "oleo" strut, hydraulic shock absorbing landing gear on a light commercial airplane. The model 10 also had a larger wing area, larger cockpits and an adjustable stabilizer. They sold for \$2460. The fuselage was built of steel tube covered with fabric. The 30 foot wings were built of wood, covered with fabric. Two passengers could sit in the forward cockpit under the wing. The pilot sat behind in a separate cockpit.

The WACO 10 could be fitted with a variety of engines, but the Woodward planes had the water cooled Curtiss OX5 engine which had propelled the Curtiss Jenny JN-4D. Russ Holderman was well acquainted with the OX5 engine and had a lot of confidence in its ability to keep a plane in the air. (He also wrote in *"From Kitty Hawk to the Moon"* that Bill Lindley was winning auto races

in Daytona with a racing car fitted with an OX5 airplane motor!)

Before Russ came to work for Don Woodward in LeRoy in 1928, he bought a WACO 9. "The WACO was a beautiful silver biplane powered by the famous, trusty OX5 Curtiss motor I knew so well. It handled like a dream as I brought it into the fairgrounds at Sarasota." Shortly after he sold the WACO 9 and bought the new WACO 10 with an OX5 motor, but more streamlined and with hydraulic shock struts on the landing gear. The OX5 was powered by a V-8 engine and produced 90 horsepower. It had a range of 380 miles and a cruising speed of 84 mph and could rev up to 97 mph.

In January 1927, Russ Holderman put his WACO 10 to the test. He decided to "hop" the 90 miles from Key West to Cuba. "We had confidence in our WACO tens' OX5 motors over land but no idea how they might perform on a 90 mile run across the ocean blue. ... Every minute seemed like a hour long, packed with the imagination of all sorts of mechanical horrors. I could almost hear the motor developing drum-like knockings, and feel the valve tappets loosen,



Russ Holderman's WACO racing team.

one by one. But in reality the trusty OX5 was purring smoothly, and it was only a short time before I sighted land and knew that I had made my first flight across ocean water in a land plane. By then I also knew definitely that I would never become a transatlantic pilot - - On the return flight, the OX5 made strange noises and my heart thumped madly, but as soon as land came into view, the engine seemed to be running smooth as silk ..."

The WACO had its beginnings with "Buck" Weaver of the Weaver Aircraft Company of Lorraine, Ohio. In 1923, the company was reorganized as the Advance Aircraft Company and moved to Troy, Ohio under the guidance of Elwood "Sam" Junkin and Clayton "Clay" Bruckner. In 1929, the company became known as the WACO Airplane Company. It produced a variety of airplanes, equipped with a variety of engines. The WACO 10 could be fitted with five different engines, including the OX5. WACO also manufactured large troop carrier gliders used in World War II.

Russ Holderman and Otto Enderton raced against a variety of other airplanes equipped with OX5 engines. Their success was due to what Holderman described as a motor full of "speed soup." But he wanted a faster plane, so he had the engine torn down and rebuilt, but was told that it needed a heavier crankshaft. But he raced the plane for several months anyway. At a race in Perry the engine caught up with him. "As

we rounded the home pylon for the fourth time, Dick and I were almost neck and neck ... I opened up full throttle and my souped-up OX5 turned up 2,400 RPM's, 1,200 more that it was designed for. I knew it was too much, but I wanted to beat Dick Bennett. We were only about 50 feet off the ground and I began to gain, and nosed ahead of him. Then suddenly I felt as if the whole world had exploded in my face. ... A wave of oil from the outside and inside, dashing dirt and muck and hot grease was flung in my face ... All this happened at 50 feet at more than 100 miles an hour. ... I booted the rudder first to one side then to the other with frantic kicks. ... It killed my speed pronto. I pulled the stick back and pancaked to a perfect landing a scant few feet from the trees. ... The crankshaft had broken just back of the first two cylinders. The front of the motor, the propeller and all the cowling had ripped off. Seven of the eight bolts holding the motor to the plane had broken, leaving one to keep it from falling out."

I've searched the internet to see if any of the Woodward WACOs are still around and so far haven't had any luck. Harrison Ford owns a WACO and I found photographs of him at a show in California. There are a lot of planes at the WACO Museum in Troy, Ohio and they are opening a new facility this May. The WACO Company went out of business after WWII in 1947.



Image taken from flight simulation on internet.