

Race Car Archeology - Bowles #22

Be Careful What You Wish For... By Jim Kruse

Vintage photos provided by Mark Bowles III. Late photos by Kieth and Jim Kruse

I should have studied archeology in college. It would have helped with the restoration of the #22. What first appeared to be a straight forward, typical sprint car built in the 30's turned out to be anything but. #22 sat hidden in plain sight for over 50 years. Painted red with a broom, it had an interesting but ratty looking DOHC motor and an unknown history when my wife bought it. Yep, you read correctly. My wife bought it.

My Dad had raced a SOHC Hal in the 50's and talked fondly of someday having another one. So when this car came up, with what we thought was a DO Hal, it was a little bit like going down memory lane. After all, we did have an empty space in the shop. Little did we know then, this tired sprinter was something special.

When we got the car home, we removed the body. All of the panels appeared to be original and not beat up. That does not happen often. But we immediately saw a problem. The original aluminum bell housing was repaired poorly after breaking at least twice. This was clearly caused by the rear radius rod geometry that was off by

nearly two inches. That probably saved the motor as most of these Hals were grenaded at some point. It had to drive terrible. It also showed this was not the type of motor the car ran originally. The installers of the Hal knew nothing about basic geometry. It probably saved their lives.

In addition to the geometry being off, the top right side of the frame along the engine appeared to be really mangled. At some point, it obviously had a different motor shoe horned in. We later discovered this "frame damage" was really "Hand Forming" and was an important part of discovering the history. The rear end was unknown but someone had cut off the ends and welded on new ones with backing plates that carried 12-inch brake drums of unknown make. The grease was so thick we thought the drums were painted black, and that went for all the chassis components.

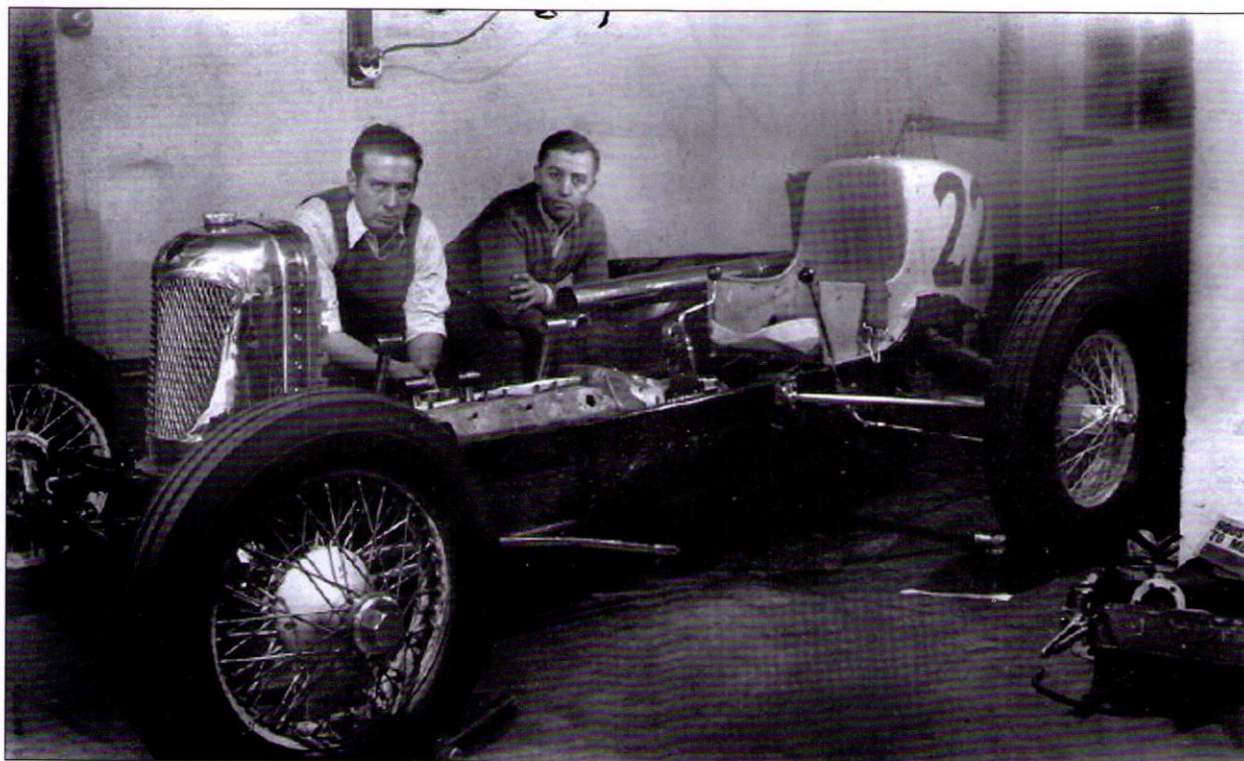
Grease, some black paint and a lot of red overspray was how the car was presented. But under the grease, there was chrome everywhere.

She was a beautiful car when new. And she was a



Provided by Mark Bowles III

Clay Corbitt in a hard slide



Provided by Mark Bowles III

From the left, midget driver Ray "Flash" Webber and Chief Mechanic Jake Burkhart. Jake was a paid employee for the team.



Clay Corbitt. He was killed at Salem Speedway in the first lap of the first race in 1947.



Clay's wife Mirriam Corbitt.

good car. Well worn, but not broken. Most of these cars were used up and thrown away. But this little red sprinter had a guardian angel and survived.

The decision was made to just get it running. The Hal appeared to be in pretty good shape, the radiator held water and the transmission and brakes worked. The dual Winfield SR's looked nice and the Bosch mag had good spark. But before we pulled the motor to freshen it up, we decided to take the car to Winchester for the Old Timers meet. That is where the #22's history came to light.

Prior to the meet, I had spoken to a gentleman named Mark Bowles. I had discovered his name by re-

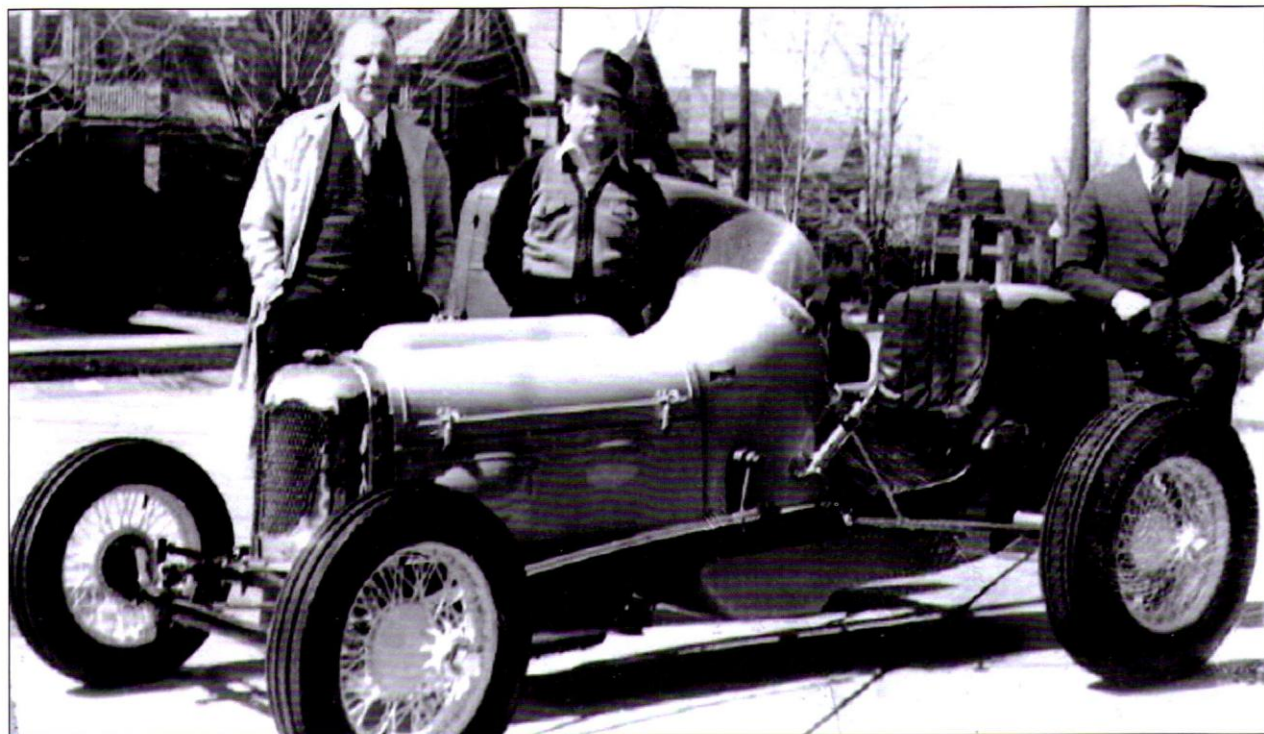


Uncle Joe Bowles sitting in the new car

searching the owners misspelled name hand painted on the car as Dr. M.E. Bowes, not Bowles. He was planning on coming to Winchester with his father, Dr. Mark Bowles II, born in 1918, the builder of the #22.

Mr. Bowles' story is one for another day, but his career highlights include qualifying 14th at Indy in 1940, owning Winchester Speedway in the 50's, becoming a nuclear scientist, was instrumental in our nuclear submarine development and a professor at Princeton where he retired in 1983.

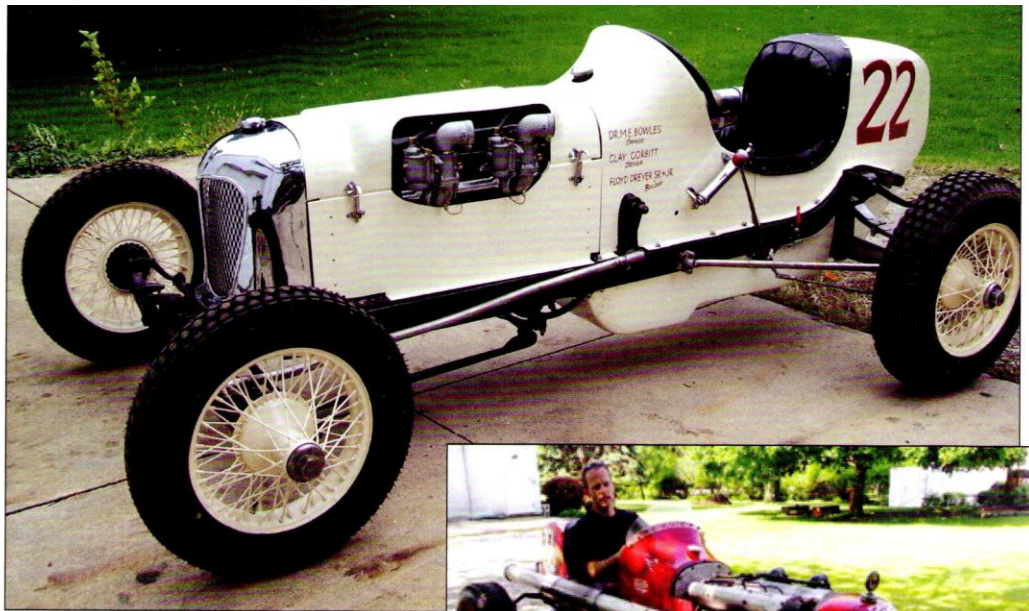
Mark thought for sure the car we had was his father's first sprint car, Hisso powered, on a specially con-



Dr. Mark Bowles I, Jake Burkhardt and Uncle Joe with the #22. Dr. Bowles II probably took this picture and he is still lives to today in Speedway at the age of 94

structed chassis by Pop Dreyer. It was piloted by several drivers, but most successfully by Clay Corbitt, (killed in 1947 at Salem Speedway) one of the great sprint drivers in his day. He also had a complete photo album of the car that he was more than willing to share. Sure enough, when we met at Winchester, Mr. Bowles went over the car explaining why #22 was special.

The frame was built as light as possible and the hand formed portions were there to accommodate the water pump and mag drive of the Hisso. The rear end was unique, later to be documented by Ray Kuns in the 6th addition of American Racing in 1947. The car was how he remembered it, with the exception of the nose. It had a Dreyer flat shell originally and the color was a light yellow. He was not sure



The number 22, first day outside. Dual winfield SR's showing



Author Jim Kruse imagines what racing this machine would have been like.



Jr. Dreyer, left, and Keith Kruse with the car at Jr's shop. Jr. made the shell and hood, the only new body panels, but they are still authentic and made by a Dreyer!

who he sold it to.

Hisco sprint cars were very special. Using half of the V8 airplane engine, they were 358CI SOHC and took a talented driver as max RPM's were about 2800. They began showing up in the late 1920's but raced successfully as late as 1954 by owner Speedy Helm. Hisco powered cars won many features and were a very special part of American racing history with drivers like Mauri Rose, Rex Mays and Frank Brisco. To my knowledge, of the roughly



Black painted cam covers were fabricated by a previous owner.

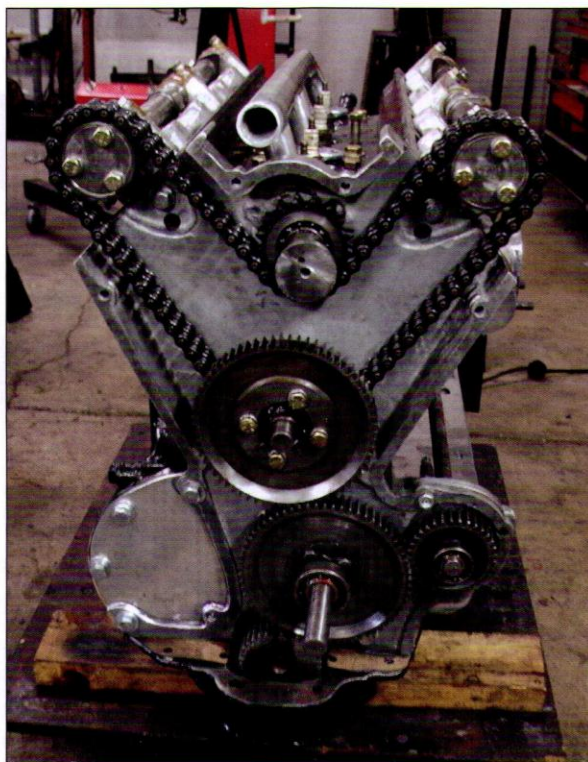


Sparkling new.

35 cars that competed under various owners and numbers, only 3 survive today, including my car, making them extremely rare.

With this in mind, I decided to try to find a Hisco motor. No luck. So we moved forward with the freshening of the Hal. It was how the car ended its career, so it was still very authentic. The motor was taken apart and carefully examined every possible. The block was Model B and was bare. The valve guides and seats had never been cut. The rods were all Hal I beam style connected to Hal pentroof pistons. At least one piston had been "kissed" by one of the 2 inch valves. It was just seconds from disaster.

All of our engine ma-



Completely new valve train. Note the double roller chain.

chine work was performed by C&P Machine in Fort Wayne, Indiana. They are one of the few shops that tackle these types of projects with open arms. The cylinder bores were extremely worn and unusable. They were bored, sleeved and re-bored to standard. The pistons, which were over-size, were also re-machined to standard. The ring grooves were re-cut to accept modern rings. The rods, along with the entire assembly, were magnafluxed and found to be sound.

The crankshaft was a different story. It had several cracks and was in bad shape. The cracks were welded, and the journals and throws were also welded and re-grounded to standard size. Hal used Ford V-8 60 bearings, which C&P were able to obtain. The main line was completely re-machined and line bored. The cylinder head needed some tricky machine work also. The valve seats were badly eroded and sunk in. The hemispherical shape does not allow much room for cutting new valve seats, and C&P carefully accomplished this with very good results. The cam drive system was totally worn out so everything was replaced with

new. This required some custom fabricated sprockets and gears. The two oil pumps were in excellent shape and required nothing.

The aluminum clutch housing was broken and had been welded several times in its past. It carried the typical 28 Ford multiple disc clutch, which was retained. My Dad fabricated a new 12" steel bell housing and incorporated a very small but strong modern starter, which works wonderfully. (Check it out at [Jim Kruse Sprintcar on Youtube](http://www.youtube.com/watch?v=XFWOpSS2A6E)).

More >>>>

The car can be seen running at <http://www.youtube.com/watch?v=XFWOpSS2A6E> or by putting in Dreyer Sprint Car on Youtube.com



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