

**Personal experiences with my Bristol powered race cars**  
**by Bill Watkins, Long Beach, California March 29, 2016**

I began sports car racing on May 1, 1955 in my 1954 Triumph TR2. Six weeks later, I saw an Arnolt-Bristol for the first time at a race that was held at Hansen Dam Park in the San Fernando Valley region of Los Angeles County. It was owned by Rudy Cleye; restaurateur, and later the builder of Riverside International Raceway, who was helping in the pits that day as was I. I was impressed by its appearance and later, as I attempted to compete against their 120 horsepower with my 90 horsepower Triumph, with their performance. In early 1957 I saw an advertisement for a used Arnolt Bristol at a dealership in Scottsdale, Arizona, about 400 miles away. So my wife and I hopped in the Triumph and drove to Scottsdale where I traded it in, along with about \$600, on my first Arnolt-Bristol, 404x3006. The car was the Competition Model which started out as bare bones car with a short plastic windscreen, no wipers, and no provision for side curtains. This car was fitted with a homemade windshield and an atrocious homemade fiberglass top. Nevertheless, we were young and could tolerate the wind in our faces for the 400 mile drive home. In May that year I had my first race in an Arnolt-Bristol at Hour Glass Field, a US Navy airbase south of Escondido, California. I was pleased with its handling, but I don't recall how I finished; I'm only certain that I didn't win.



404x3006 at Hour Glass Field, May, 1957

However, I was able to drive it home and to work on the following Monday and that was an issue at that time because, otherwise, I would have had to hitch hike. Later I bought a 1939 Chevrolet coupe with which I could tow the car and drive to work when it wasn't running. We're talking impecunious enthusiast here. My early years as a junior research engineer at an aircraft company, raising a family, and buying a house, didn't leave a lot of funds for maintaining and racing a sports car. The Arnolt-Bristol turned out to be more than I could financially handle. The BS1 engine was fitted with an un-counterbalanced crankshaft that was not only hard on the center main bearings, but also was subjected to destructive torsional vibration at high revolutions. After two more race weekends, at Paramount Ranch and again at Hour Glass, I found that the crank was cracked and had to be replaced. I found a used one, fitted it, and sold the car in 1958



404x3006, has changed hands several times since, but now sits in a shed in Illinois.

I didn't quit racing though. Over the next eight years I raced several cars; an MG-TD, an MG-TC Special, an MGA, a Cooper Bobtail, and an Elva Formula Junior. Then in 1966, I went to work for Walt Disney Imagineering as ride designer, a field that I pursued for the rest of my engineering career. The work satisfied my need to create or tinker with mechanical things; I was designing vehicles and tracks. So I quit racing and sold my race car.

Things changed, though, after thirteen years of abstinence. In 1978 I was promoted to Chief Engineer, a mostly administrative position, and the urges started to return. One day, in early 1979, I passed a car repair shop in Pasadena and I happened to see a red Arnolt-Bristol just inside the door. My first thought was that it might be my old car, but upon inspection, I could see that it was not the Competition Model, but rather, a Bolide. The shop manager let me know right away that the car was for sale (at a price that was about double what they sold for new). The car was street legal and properly licensed, so it was a car that I could drive to work and on the twisty roads in the mountains north of our home. So, a few days later I bought the car, serial 404x3008 and began using it for transportation.

A few weeks later, at the Los Angeles County Fair, there was a display by the Historic Motor Sports Association (HMSA) describing their activities and announcing an upcoming race at Riverside Raceway, just a few miles east. I wasn't aware of vintage or historic racing, but I could see that it was a new opportunity for me. So I entered the race. At that time there were no requirements for roll bars, fire extinguishers, or special gas tanks, so all I had to do was tape the headlights and show up. My assigned pit was next to Brett Austin in Arnolt-Bristol, 404x3102. We often pitted together for years to come.



404x3008 and 404x3102 at Riverside in 1982.

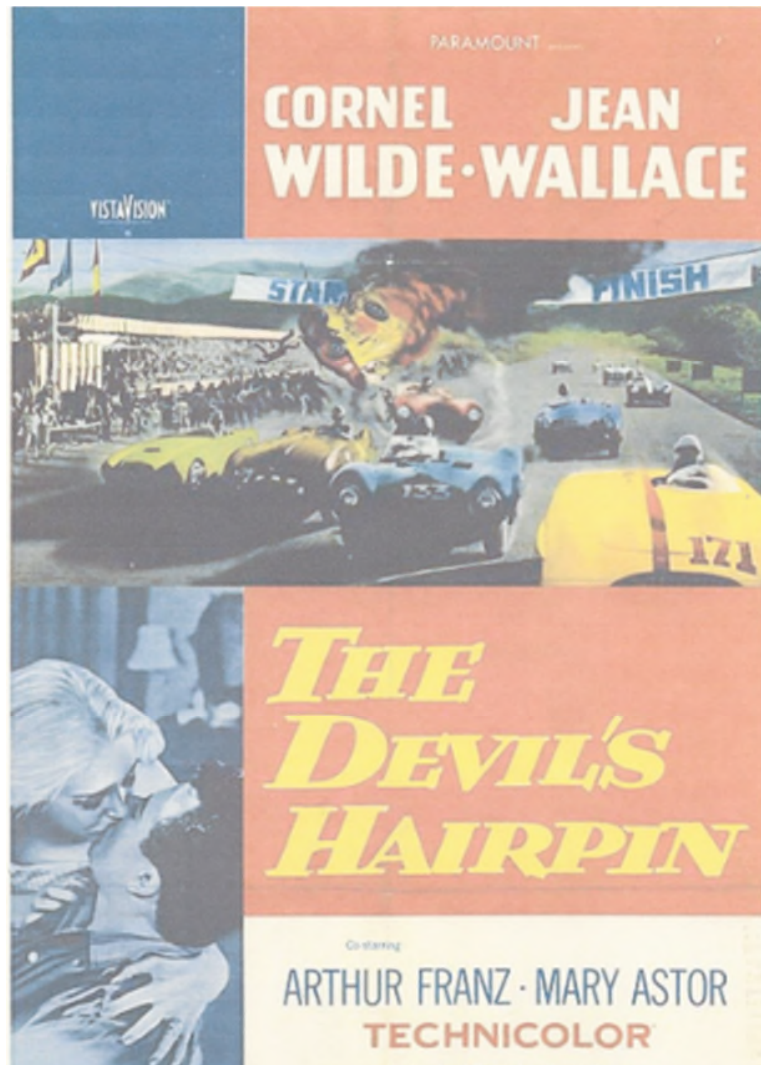




At Riverside Raceway, April, 1979. As with my first Arnolt-Bristol, the grill was missing.



404x 3008 had a long racing history. Here it is at Pebble Beach in 1955. Scott Baxter was the driver.



404x3008 appears on this movie poster. Racing scenes in this 1957 movie were shot at Paramount Ranch on a race weekend. Don Hulette was the owner/ driver at that event.

The next race was my first drive at Laguna Seca Raceway in the Monterey Historic Automobile Races, one of the premier historic sports car races in the United States. I managed to finish in the top ten (barely), but it was a start in a long series of Monterey Historics for me. I ran the same pair of races in 1980: Riverside in April and the Historics in August, finishing in 3rd place behind a Morgan and a D.B. Renault Le Mans car. In 1981 engine problems resulted in a DNF (Did Not Finish). Again a BS1 (small-nose) crankshaft problem, so I missed the Historics that year. By March, 1982 I had the car running again with a D2 (big-nose) crankshaft which is counterbalanced and fitted with a viscous dampener which mitigates the torsional vibrations. I never ran a BS1 crank again, but as a side note, I spoke with a Cooper Bristol driver at Goodwood in 2000 who swears by the BS1 crank because its light weight and low rotary inertia improves the cars acceleration from a standing start at the beginning of a race. I trust that he has a large supply of BS1 crankshafts. I must also mention that we don't do standing starts on our side of the pond because of the risk of stalled cars causing serious collisions.

1982 was a banner year for 404x3008. I finished 3rd in the HMSA Spring Race (a low key non-spectator event), but I won at the Historics in the only year in which there were four Arnolt-Bristols in the field. For some reason, I was placed on the pre-grid in 13th position, behind all the other Arnolts, so I had a great time working my way through the pack.

I continued to race 3008 in the Historics until 1987, always finishing in the top 5 and with two 2nd places, one behind a Lotus Mk.9 and the other a Mercedes 300SL Roadster. During that period, I was running about 10 races a year, mostly in the Arnolt and some in a Marcos 1600 GT coupe. In 1987 I also won at the HSMA's first race of the Wine Country series at the Sears Point Raceway.





Four Arnolt-Bristols at the 1982 Monterey Historic Automobile Race. Chuck Weber in 3005, Brett Austin in 3102, Chuck Breazeale in 3080 and my 3008 (#185).



A refueling stop in an open road race between Ensenada and San Felipe, Mexico in March, 1988. An interesting thing happened in that race. At about 110 mph the hood (or bonnet) which is hinged in the front, popped up due to negative pressure over the top. The car immediately increased speed to 120 mph. due to a decrease in drag.



A little excitement at the 1986 Monterey Historic when Chuck Breazeale and I encountered a spinning Porsche in the Laguna Seca Corkscrew.





404x3008 also appeared in the 1997 movie James Dean, Race with Destiny. That's me with the actor who played James Dean, Casper Van Dien. Race segments were shot at Willow Springs Raceway in California.

I raced 404x3008 on 28 weekends at tracks in California before temporarily retiring it in favor of a third Arnolt-Bristol, 404x3014 which I bought in 1986 from an automotive artist and collector who lived near me. The car needed a lot of work, but the price was right. I began racing the car in March, 1988 in the La Carrera Classic III.



The first race for 404x3014 was the La Carrera Classic III, an open road race of about 150 miles from Ensenada to San Felipe, Mexico.

Then, at the Monterey Historics in August, 1990 there occurred my worst Arnolt-Bristol experience.



The car suffered from failure of poorly bonded brake linings with a disastrous result. I learned to always add rivets to bonded brake lining after that.



The brakes had failed at the top of the corkscrew and resulted in a sudden stop against a stack of haybales. Repairs were paid for (not voluntarily) by the brake shop.

It was nearly a year before the car was back in service. In the meantime I was racing the Marcos and an Alfa Romeo Guila coupe. I also drove Lee Raskin's Arnolt-Bristol at a race in Schenley Park in Pittsburgh, Pennsylvania.



Lee Raskin's 404x3134 Arnolt-Bristol on the pre-grid at Schenley Park. July, 1991. That car is now in Liechtenstein. Lee was racing his Morgan that weekend.





404x3014 as raced several more weekends with a best finish of 2nd place at Road America near Elkhart Lake, Wisconsin in July, 1993.

In November, 1995, I sold the car to a friend, Dave Cammarano of Olympia, Washington, who licensed it for the street and used it primarily for rallies. He kindly allowed me to race it one more time at Portland International Raceway in Oregon in July, 2000. He was racing his Allard.



Here, Dave's wife, Sharon, is teaching me how to gap spark plugs.

In September, 1990, I had purchased, sight unseen, another Arnolt Bristol from an owner in Chicago, Illinois. He had represented the car as being in good shape, needing only a paint job.



The owner sent this picture representing the condition of 404x3069.



When the car arrived after its 2000 mile journey across the U.S., I stuck my hand through a rust spot in the door. And that was only the beginning.



404x3069 as disassembly began.

I later learned that the car had sat outside in Chicago through 25 winters, often covered with snow, before being purchased by the individual who sold it to me.



By March, 1993, after retiring, I was able to make progress on rehabilitating the body.  
Here 404x3069 sits alongside its brother, 404x3014.





In July, 1994, 404x3069 was ready for its first race at Willow Springs Raceway.



In August, 1994, 404x3069 was entered in its first Monterey Historic. It was pitted with the Bristol engined Frazer Nash of the late Ned Curtis.



For the next few years 404x3069 ( blue stripes) was the primary Arnolt-Bristol race car, though occasionally the others were put into service along with a newly acquired Genie/ Ford.



In February, 1998 Tom Hollfelder and I took our cars to New Zealand for the Southern Festival of Speed. Because we intended to drive on the highways between events, I took 404x3008 and he took his Devin SS/ Chevrolet.

There was a street race in Dunedin, NZ following a hill climb nearby. After that, another hill climb near Queenstown, a race at Teratonga near Invercargil, and a race at Ruapuna near Christchurch. A wonderful month in a country with many friendly people who are enthusiastic about historic sports car racing. Apparently, there had never been an Arnolt-Bristol in New Zealand, yet people would approach me at service stations and tell me that they always wanted to see an Arnolt-Bristol. That never happened in the USA. This was the first of seven visits to New Zealand.

In 1999 I returned to New Zealand, taking along my wife and another couple, to introduce them to the wonders of the islands and to the friends that I had met there the year before. While touring with Robert Boulton, an Allard driver, he told me that his brother, Jim, had a Cooper Bristol Formula 2 replica that he wished to sell. New Zealand is a hot-bed of replica sports & racing cars. There are numerous Lotus 7's there, for example, very few of which were built in England. Jim had obtained a Cooper Bristol from England, but he decided to replicate it and send it back home. The car was an excellent reproduction and, except for the Jaguar XJ-6 rear axle, could hardly be differentiated from the real thing. It came with a long-stroke 2.2 liter Bristol engine, set up to run on methanol. We visited Jim that day and I agreed to buy the car and his small box trailer. He agreed to have it ready for me to race when I came back in 2000.



Jim Boulton driving the Cooper Bristol replica at a street race in Queenstown, NZ.

In February 2000 I returned to New Zealand to run the Cooper Bristol in the Southern Festival of Speed series, four races and two hill climbs, ending at Teratonga, Invercargil. I left the car for storage at a race shop, but took the engine home to convert it from methanol to gasoline. Methanol can only be obtained in limited places and is corrosive if left in the carburetors for extended periods, requiring flushing with gasoline each day after the races.





My first race in the Cooper Bristol was at Ruapuna near Christchurch, NZ



At the street race in Dunedin, seconds after the standing start, two cars ahead tangled in the first turn and stopped, blocking the course. In the microsecond that I was congratulating myself for getting stopped in time, the car behind me didn't. My car was pushed on top of one of the stalled cars. Fortunately there are good panel-beaters in NZ. This was only the first time that I needed their help.

While in New Zealand I learned that I had an invitation to run my Arnolt-Bristol in the Goodwood Revival in England in September. The only stipulation was that the roll bar must be removed because they don't accept 1950s cars with roll bars. I continued racing 404x3069 in the USA including the Monterey Historic and then shipped it to England.



Goodwood settings depict typical stores and shops as they appeared in the early 20th century. 404x3069 sans roll bar and before the new numbers were attached, At Goodwood they place the cars alphabetically in the paddock and number them accordingly. So the Arnolt-Bristol got number 3.





The first day's practice at the 2000 Goodwood Revival was in the rain; something that we seldom have to deal with in California.



Michael Parr was there with his ex-Jim Boulton Cooper Bristol. This is the car that my Cooper Bristol replica was copied from.



From 2000 to 2003 I continued to race 404x3069, the Cooper Bristol, and the Genie. I had sold 404x3008 to Wayne Hanson in San Diego. After the 2002 season in New Zealand, I brought the Cooper Bristol home and sold it to Will Tomkins in England. After my final race in the United States, at Coronado in October 2003, I sold 404x3069 to Michael Parr, the London Cooper Bristol owner that I had met at Goodwood. That car has moved on to Belgium where it went through another restoration and was run in the Mille Miglia. Dave Cammarano sold 404x3014, also to Will Tomkins. I ran one more race in New Zealand in Robert Boulton's Furi 8, a NZ special, and then I ended my racing career except for demo runs in Indianapolis race cars.



This painting by Hector Cademartori shows Arnolt-Bristol 404x3008 and the Cooper Bristol as well as the Genie Mk8/Ford and the Marcos GT. It hangs in my office to remind me of the 49 years and 385 races that made up my racing life.

My interest in Arnolt-Bristols is still alive more than a decade after parting with the last one. I maintain, on the internet, a list of the present and former owners of the 142 cars that were built. This can be found by Googling: [Arnolt-Bristols Owners List](#).

In September, 2015 I attended a [Gathering of Arnolt-Bristols](#) at Lime Rock Park in Connecticut which was organized by Matt deGarmo, owner of 404x3038. Excellent pictures and description of this event can be found at: <http://blog.degarmoltd.com/wordpress/2015/09/arnolt-bristols-invade-lime-rock/#jp-carousel-976>



I rode with Matt in Arnolt-Bristol 404x3038 who led the group on a tour of the Lime Rock Park racecourse.

Wayne Carini, of the Velocity Channel's [Chasing Classic Cars](#) was there to record the activities for episode S8 E10 of his television show.